THE ARCHITECT & BUILDING NEWS

27 MAY 1954 · VOL. 205 · NO. 21 · ONE SHILLING WEEKLY

- ALTERATIONS TO MEN'S WEAR SHOP
- HOUSE AT PLATT, KENT
- CURRENT MARKET PRICES

WHERE SIMPLE OR COMPLICATED SCHEMES OF VENTILATION ARE INSTALLED, AND THE OPERATION IS REQUIRED BY REMOTE CONTROL OR OTHERWISE, AND THE WINDOWS HAVE ANY OF THE FOLLOWING CHARACTERISTICS:—

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- **OPENING INWARDS**
- **TOP HUNG**
- **HORIZONTAL CENTRE HUNG**
- **BOTTOM HUNG**
- **VERTICAL PIVOT HUNG**
- **SIDE HUNG**
- **HORIZONTAL SLIDING**
- **VERTICAL SLIDING**

The illustration shows One set of Electrically operated Twin Tension Rod Gear with Counter-Balance Unit operating one continuous opening light, 74' 0" long x 5' 0" deep. Note the Spiral Balance Wheel fitted at the end Sprocket.

Always Specify WINDOW OPENING GEAR *for*
SKYLIGHTS, LANTERN LIGHTS, CLERESTORY LIGHTS, FANLIGHTS, SIDE WALL LIGHTS IN WOOD OR METAL WINDOWS, OR IN PATENT GLAZING, ROOF LIGHTS AND BENCH LIGHTS IN GREENHOUSES, DAMPERS, TRAP DOORS, SHIPS SKYLIGHTS, ETC.
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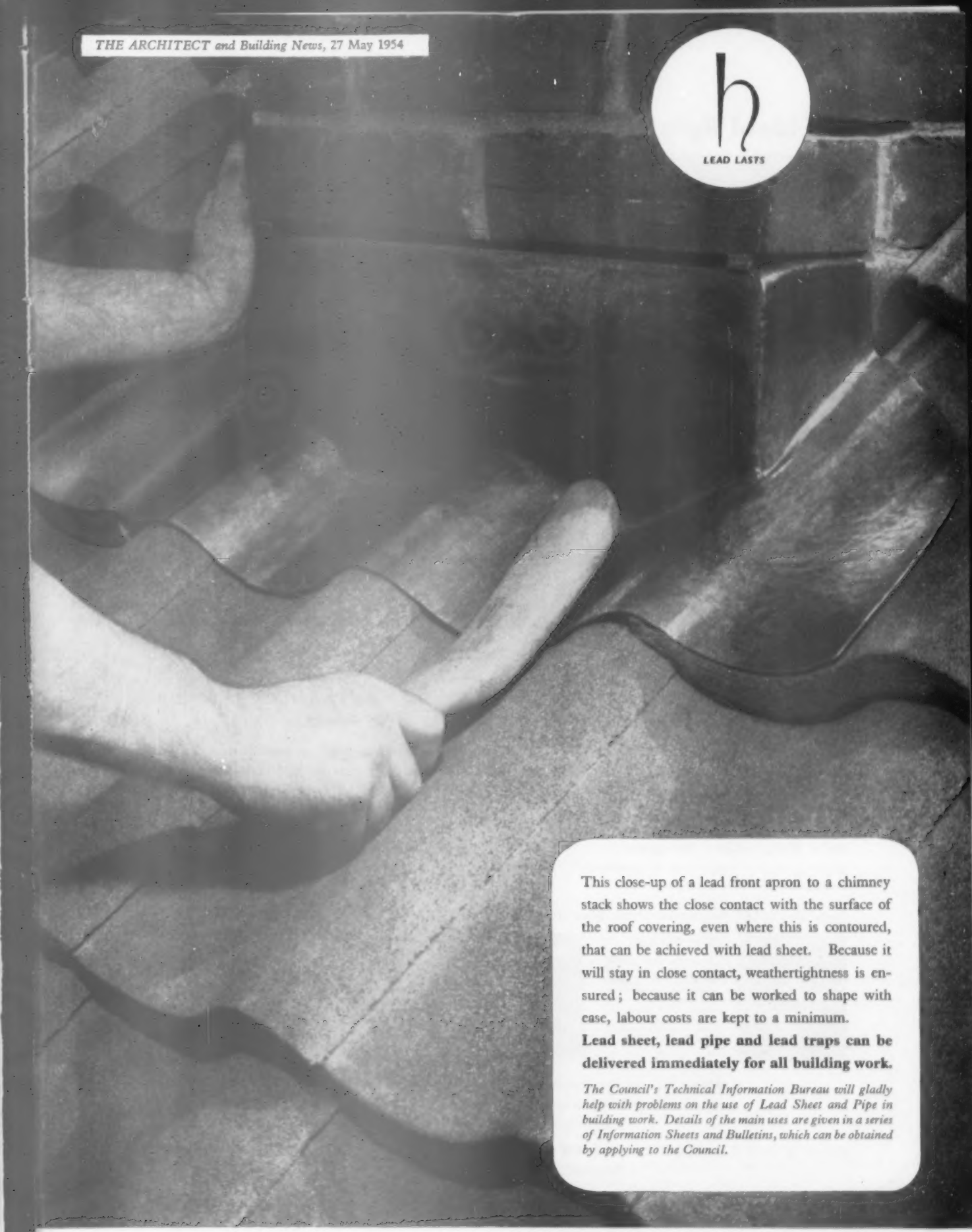

LEAD LASTS

This close-up of a lead front apron to a chimney stack shows the close contact with the surface of the roof covering, even where this is contoured, that can be achieved with lead sheet. Because it will stay in close contact, weathertightness is ensured; because it can be worked to shape with ease, labour costs are kept to a minimum.

Lead sheet, lead pipe and lead traps can be delivered immediately for all building work.

The Council's Technical Information Bureau will gladly help with problems on the use of Lead Sheet and Pipe in building work. Details of the main uses are given in a series of Information Sheets and Bulletins, which can be obtained by applying to the Council.

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892/12/25

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into the lives of future
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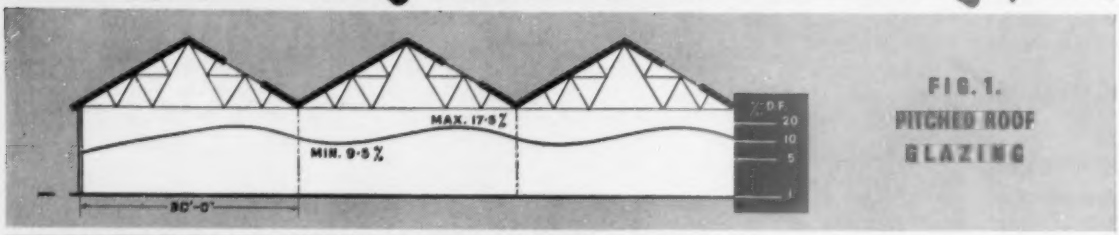
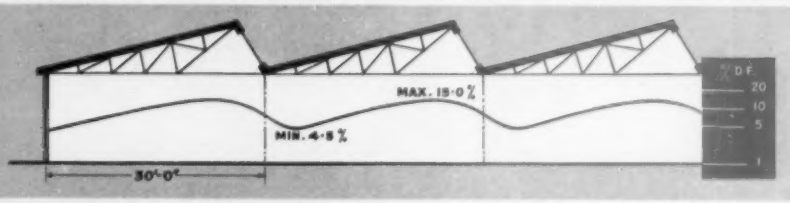


FIG. 1. PITCHED ROOF GLAZING

FIG. 2. NORTH LIGHT GLAZING



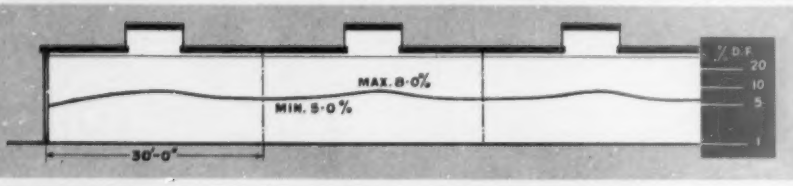
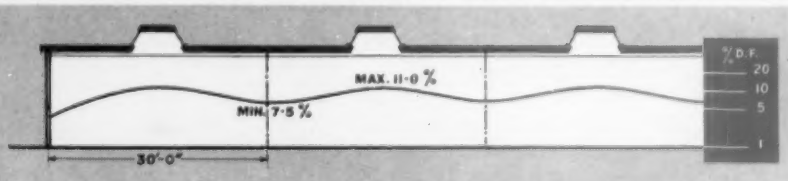


FIG. 3. MONITOR GLAZING

FIG. 4. MONITOR GLAZING



DAYLIGHT FACTOR

THE KEY TO EFFICIENT PRODUCTION

VISUAL strain is reduced to the minimum by glare-proof lighting. Providing this is achieved, and the lighting factor adequate, such lighting is considered far preferable to intense spot lighting side by side with corresponding darker areas.

Pitched roof glazing gives uneven intense spot lighting to which is added glare. It is generally believed that North light glazing gives an even light, but the uneven lighting curve of the North light diagram indicates that this is not the case. The supposition of the even North light is based on the absence of glare throughout the year.

Monitor glazing as indicated on the lighting curves of figures 3 and 4 is superior in every way to any other form of roof lighting.

Whilst the high spot lighting shown in figures 1 and 2 is not attained, the lighting factors are adequate and comparatively even lighting results.

This form of construction is most economical, and the glazing on flat roof construction can be easily cleaned and the lighting factors maintained. Dirty glass can reduce lighting factors to a third of the estimated requirements.

Our Technical Advisory Department will be pleased to advise on your lighting requirements.

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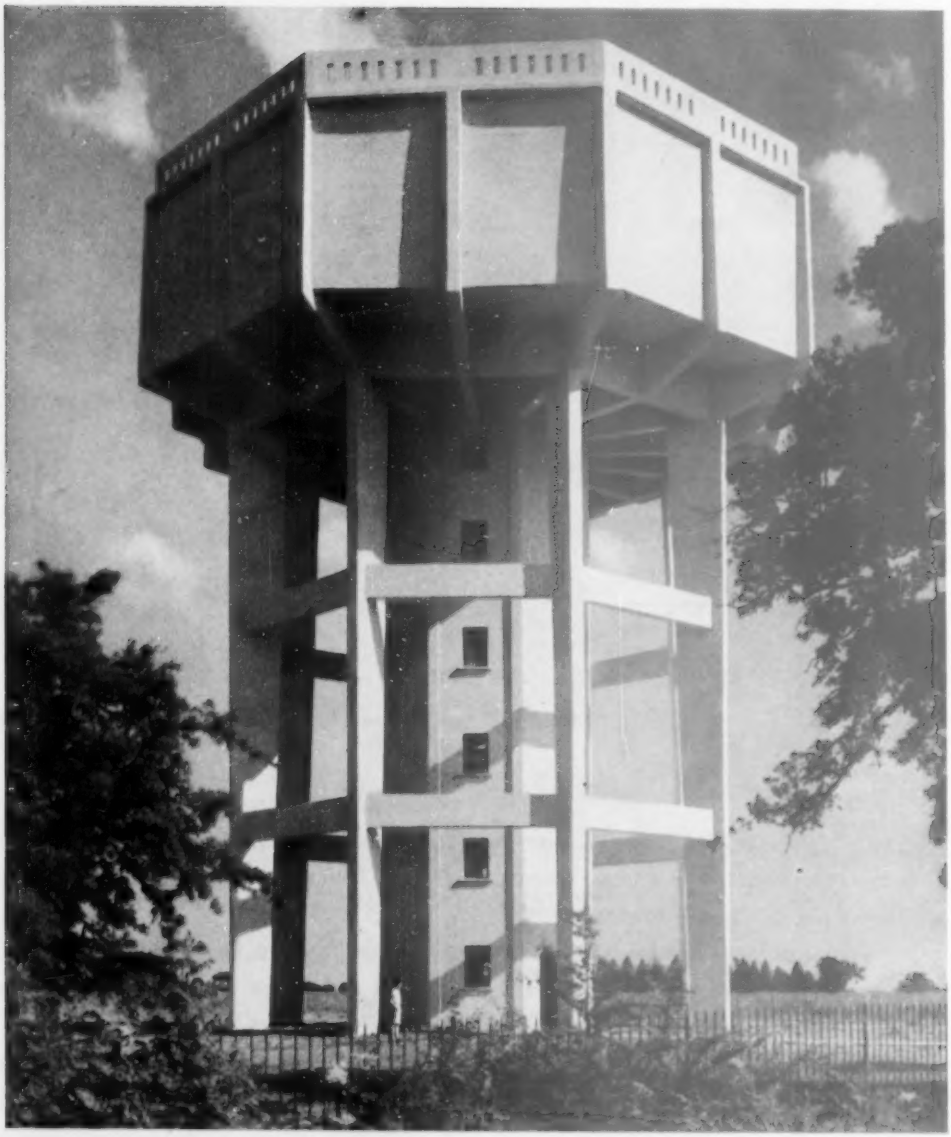

Reinforced Concrete Water Tower at Stowlingtoft for Thingoe and Thedwastre R.D.C., Consulting Engineers: Messrs. Lemon & Blizard. Contractors: Messrs. James Miller & Partners, Ltd.

This 250,000 gallon water tower in reinforced concrete is a notable example of the right materials being used in the right design for the job.

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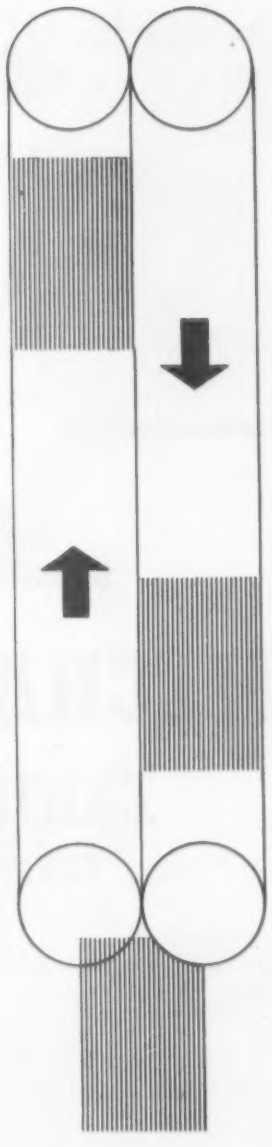

The Paternoster Lift consists of a series of lift cars carried on endless chains and travelling continuously in a clockwise direction. It is ideal for buildings in which there is a constant movement of personnel from floor to floor.

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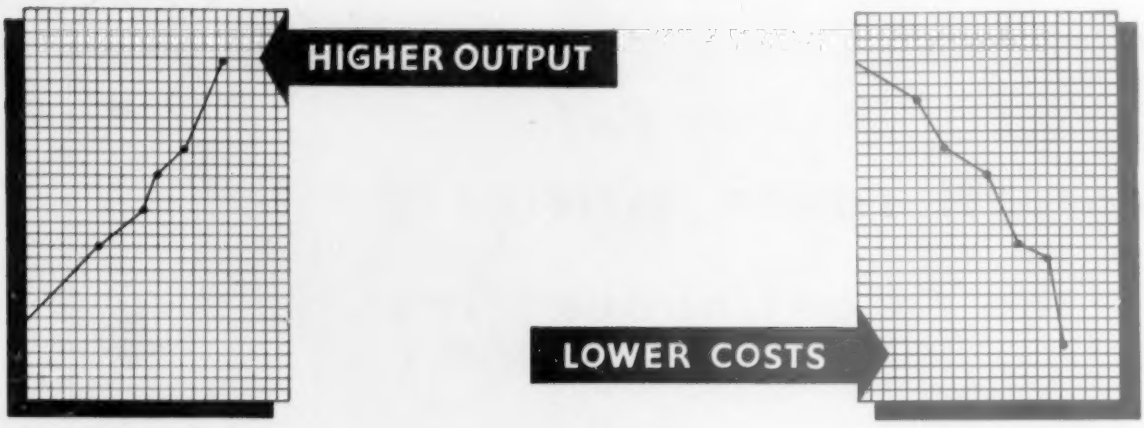

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B

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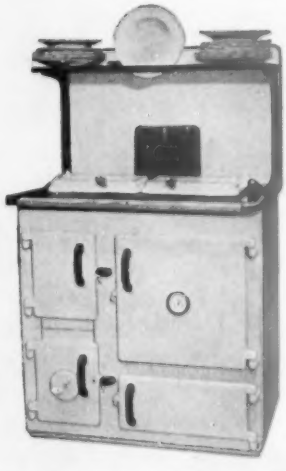
Please send for individual leaflet giving full details of any of these GLOW-WORM solid fuel-saving appliances.



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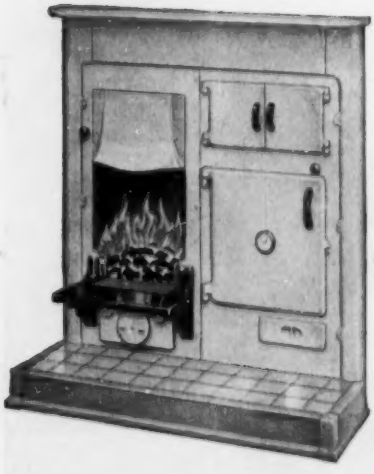

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BUILDERS BY NATURE

No. 8. THE ANT

With a sudden thrust of his spade the gardener bursts open the mound which betrays an ant nest, scattering the ants and shattering their home; but the mound of earth only acts as a clue to the whereabouts of the hill or mound nest, and the type of nest where the excavated soil forms a crater. Some ants go to great trouble to disperse the soil so that their home remains secret.

Beneath the ground an ant nest is formed of passages which link together a number of chambers. One is a brood chamber for the queen ant's use. Others form brood nurseries, granaries, fungus gardens and so on.

Some ants make nests under large stones or under leaves, others in old tree-trunks or under the bark of trees. There are even tropical ants which construct nests of earth bound together with silk and hung from branches.

Perhaps the most amazing of all ant nests is the leaf nest, formed of two or more large leaves, fastened together by a silken web from the larvae of the species, which the worker ants hold in their jaws and use like shuttles in weaving the silken tissue of the nest.

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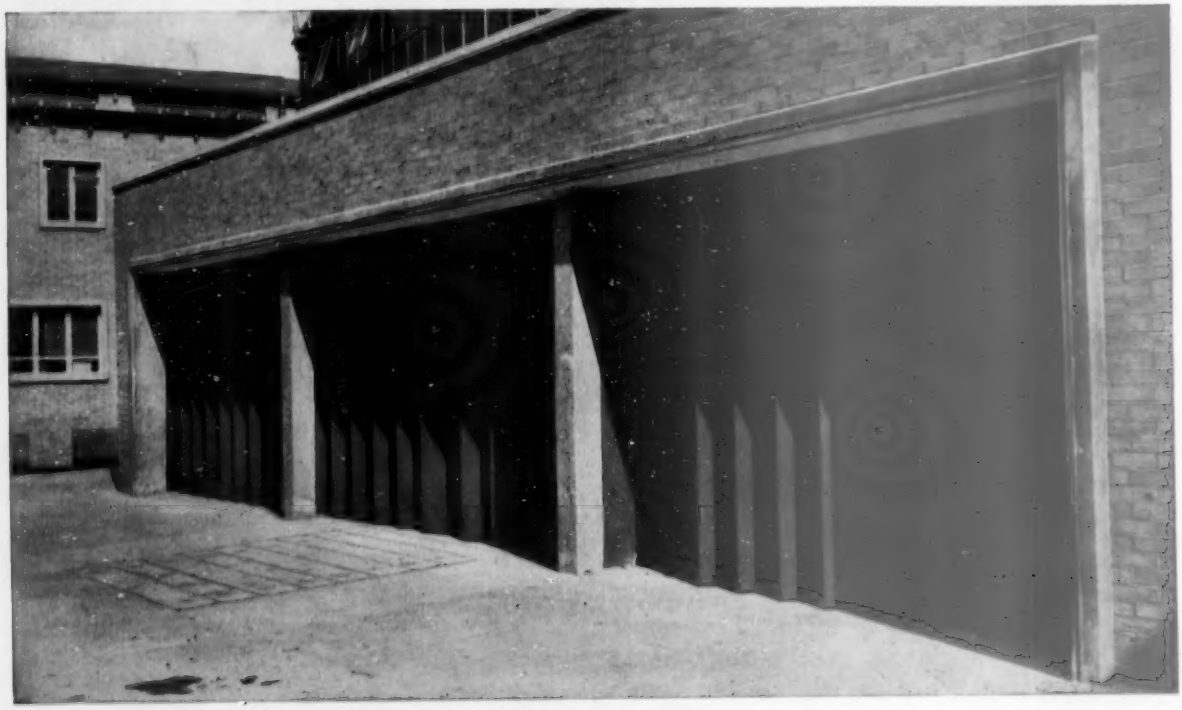

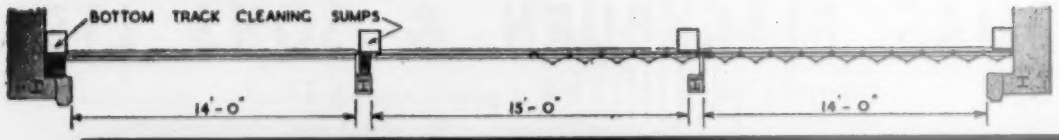

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The scope of this important system is described in a booklet entitled "Colour with a Purpose," which contains much of interest concerning the latest developments in colour usage. A copy will gladly be sent to any Architect on request.

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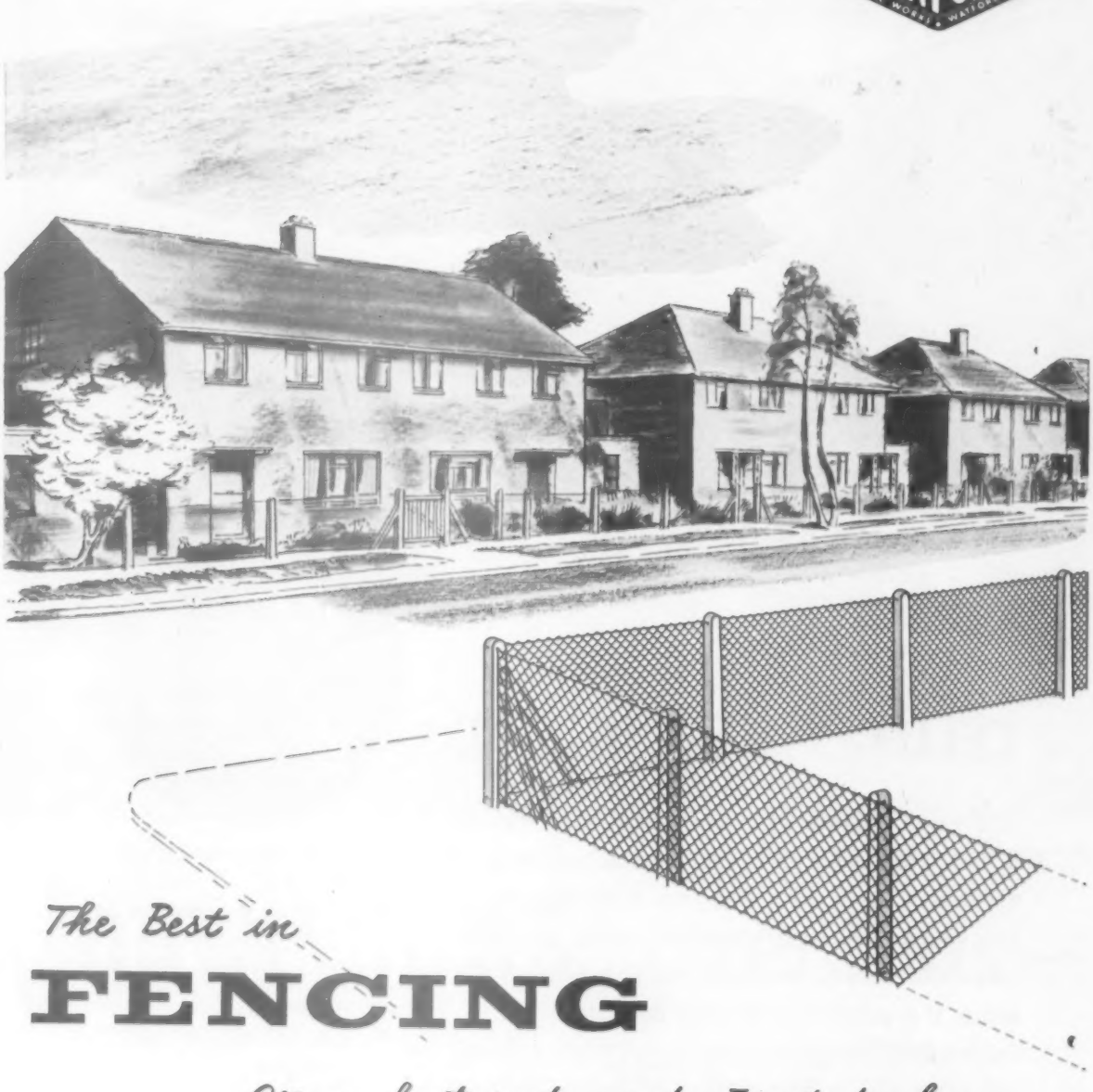

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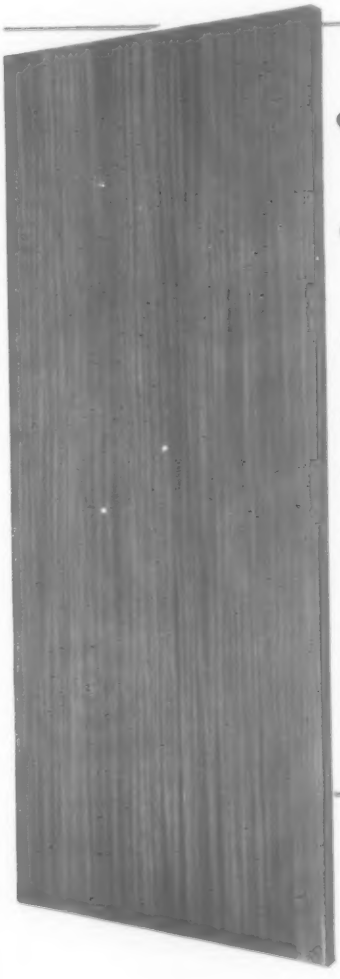

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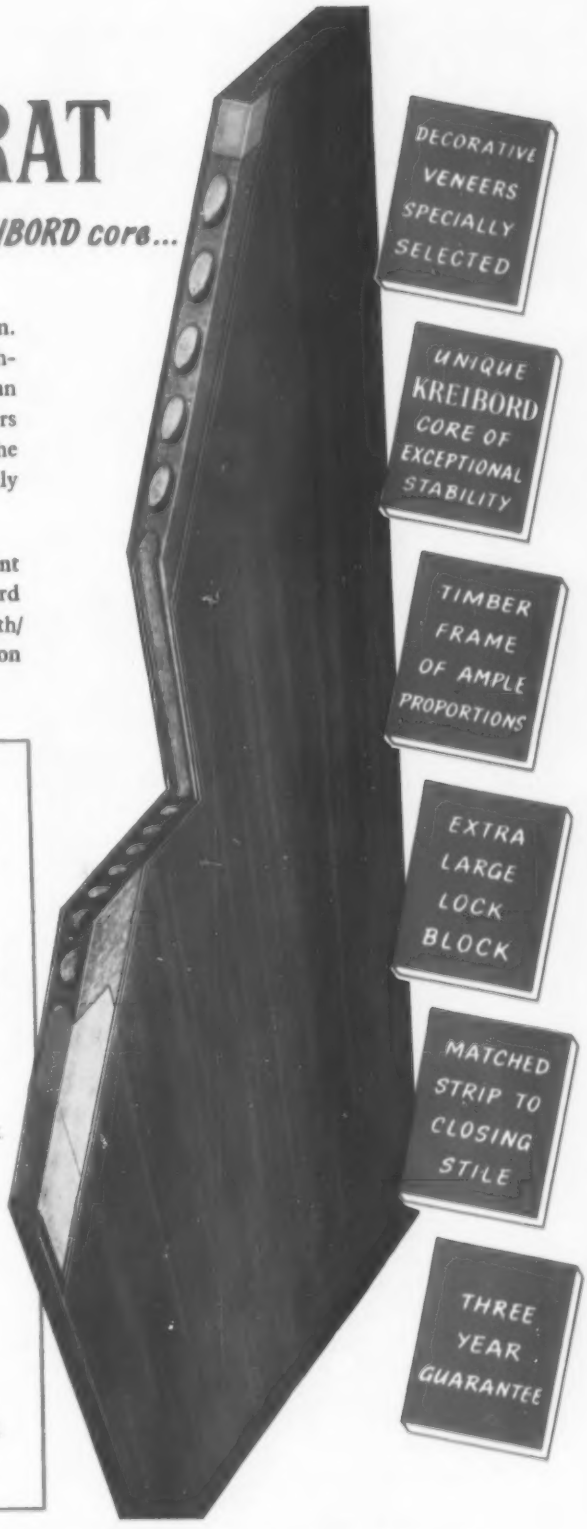
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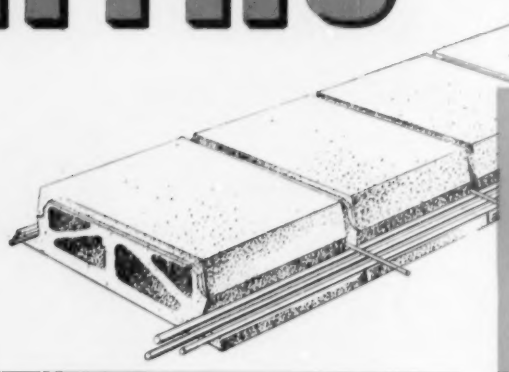

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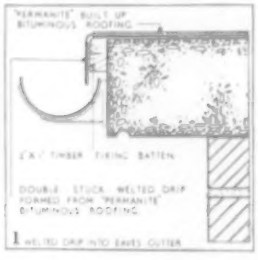
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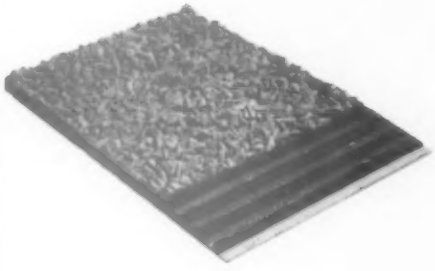

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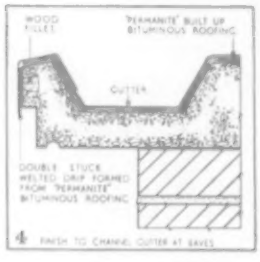
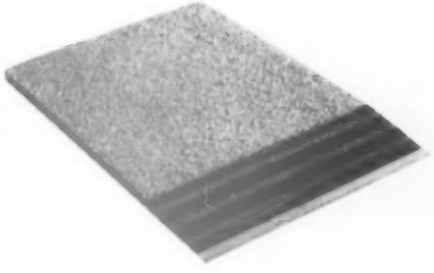
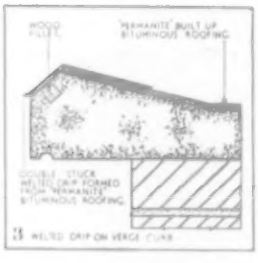
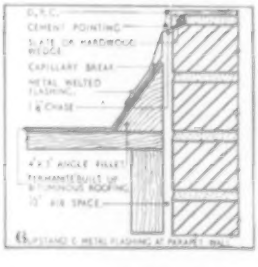

WOOD FILLET
"PERMANITE" BUILT UP BITUMINOUS ROOFING
GUTTER
DOUBLE STUCK WELTED DRIP FORMED FROM "PERMANITE" BITUMINOUS ROOFING
4 PATCH TO CHANNEL GUTTER AT EAVES

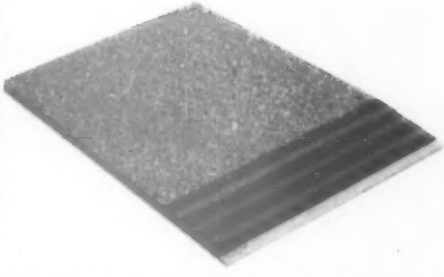


SPECIFICATION

2 or 3 layers of "Permanite" Bituminous Felt, bonded with hot bitumen and finished with a surface dressing of heat-reflecting white chippings.


WOOD FILLET
"PERMANITE" BUILT UP BITUMINOUS ROOFING
DOUBLE STUCK WELTED DRIP FORMED FROM "PERMANITE" BITUMINOUS ROOFING
3 WELTED DRIP ON VERGE CURB





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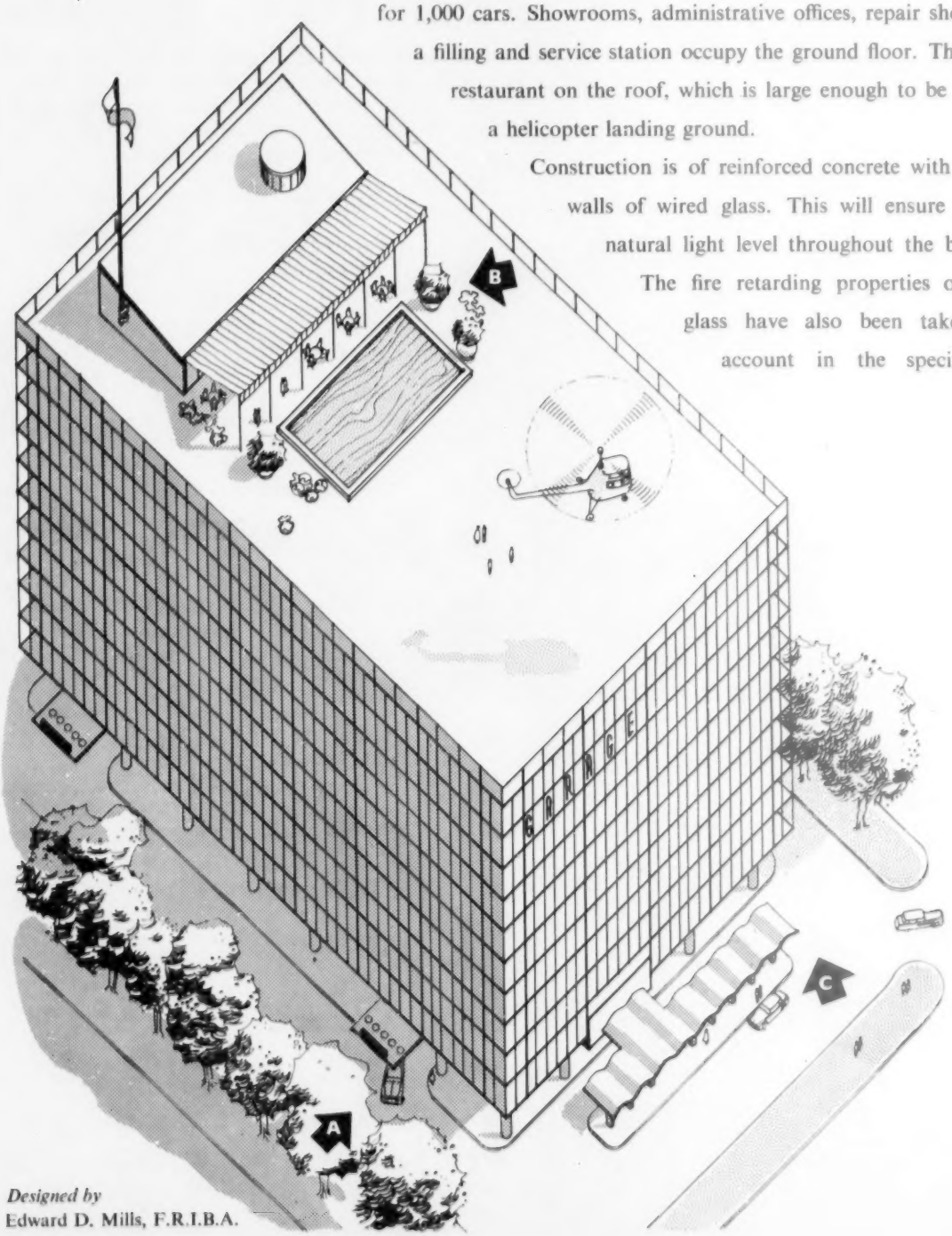

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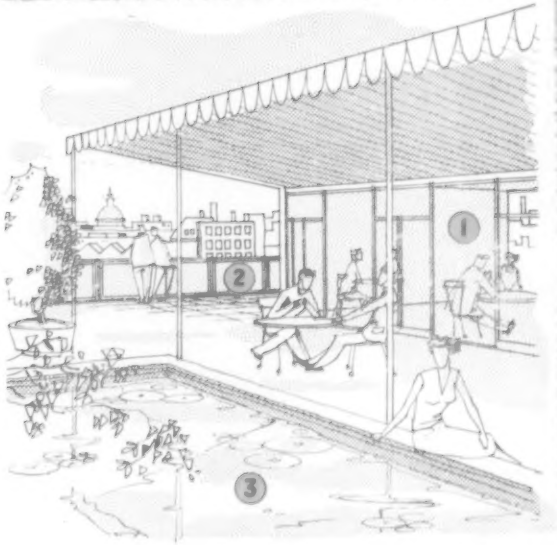
A

1 Georgian Polished Wired glass
2 Georgian Wired Cast glass
3 Glass cladding
4 Sliding and folding "ARMOURPLATE" doors
5 24 oz. Sheet glass to office windows
6 ¼" Rough Cast glass
7 Glass lenses



B

1 Polished Plate glass
2 Roof balustrades of Georgian Wired Cast glass
3 "VITROLITE" lining to decorative pool

C

1 Georgian Polished Wired glass
2 Georgian Wired Cast glass to dado level
3 Glass cladding
4 ¼" Polished Plate glass to showroom

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Vol. 205 No. 21

THE ARCHITECT & BUILDING NEWS

27 May 1954

The "Architect and Building News" incorporates the "Architect," founded in 1869, and the "Building News," founded in 1854. The annual subscription, inland and overseas, is £2 15s. 0d. post paid: U.S.A. and Canada $9.00

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ARCHITECTS AND BUILDERS

THE address which Mr. Howard Robertson gave to the London Master Builders at the R.I.B.A. last month, was an undoubted success, a success shared by the speaker and the audience. A frank exchange of viewpoints, a give-and-take of opinion, if continued sufficiently often must achieve a number of useful things.

It will iron out many small but irritating problems and differences. It will tend to increase good will by virtue of airing these differences, and it must in the long run increase the efficiency of the industry to the advantage of the client. It may even benefit both builders and architects financially by cutting out those snags which cost money.

It is because we believe this kind of meeting to be valuable that we would encourage a return match in which the President of the L.M.B.A. addresses architects, following the excellent line laid down by Mr. Robertson, whose manner, as well as his matter, struck absolutely the right note. The discussion after the address raised some important points, which should not be allowed to lapse into oblivion.

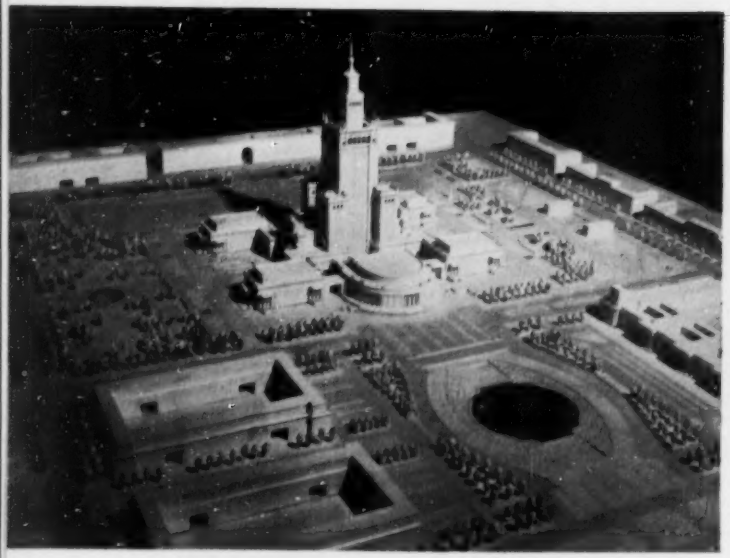
Much the most important of these was that the client should be disciplined in the matter of allowing proper time for preparatory work. Both builders and architects hate being rushed at early stages because clients have the erroneous idea that once the Contract is signed they should expect immediately to see gangs of men digging holes in the ground and bustling about. If both sides agree to re-educate the client on this question and to convince him that time spent on preparations both in the way of drawings and site organization is not wasted, it should soon become an established rule. General discussion to arrive at an agreed form of procedure in this matter should continue from now on until effective.

Other speakers raised the familiar point about a period of common training for builders and architects and quantity surveyors. This has been tried in several Universities abroad and it would be valuable to have a report on the success or otherwise of this joint training period for study over here. Probably the first thing required is a clear definition of what common educational ground is relevant.

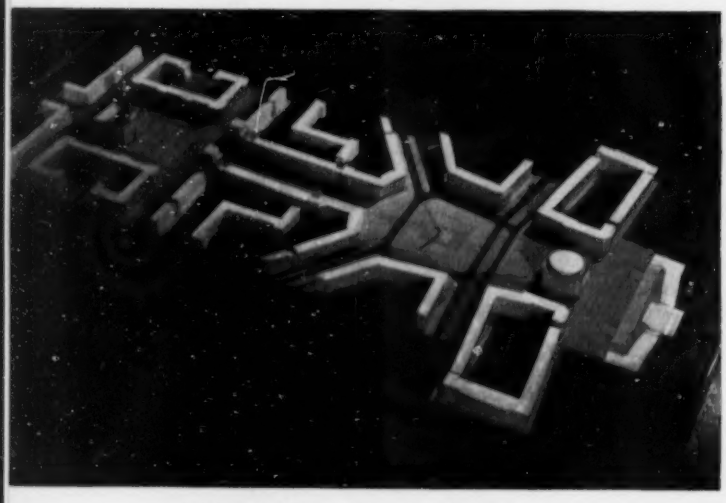
Among several points of lesser importance raised was that architects might let builders have negatives of drawings so that prints can be run off, and re-tracing for sub-contractors obviated. It may be that the man who has to read drawings and create actual buildings from these formalized diagrams has quite a lot to say about the way they are presented. One certainly sees many prints that are disgracefully faint and discoloured; some that are unclear or over-elaborated, even when allowing that the great majority of working drawings are clear and competent.

Discussion between architects and builders in circumstances that allow equality must also lead to improvement in technique. The scientific papers that are issued continuously will not of themselves eradicate failures unless their contents are discussed by the professional and operative sides of the industry, and experience and know-how shared and spread.

All this will not have escaped the notice of the committees considering liaison and joint training. But there may be something in the atmosphere of free discussion that brings out points that committees miss—the electricity of antagonism, but a good-tempered antagonism leading to constructive progress.



Exhibition of Polish Architecture: Model of the Palace of Culture and Science in Warsaw, which has been given to Poland by the Soviet Union. The exterior of the Palace itself is now finished. The surroundings and interior will be completed in 1955.



Model of the centre of the New Town of Nowa Huta near Cracow. (Chief Architect: Tadeusz Pfaszycki)

Perspective view of a brick works near Warsaw (Architect Lucjan Cepa)

EVENTS AND COMMENTS

CRAZY COLUMN

In Holles Street, just off Oxford Street, you will find a row of brand new three-storey early-nineteenth-century terrace houses nearing completion. When they are ready they are going to be converted or modernized to show property owners and local authorities how to do it. The strike of electricians at Olympia at the time of the Ideal Home Exhibition prevented this scheme from being put on then by the M.o.H.L.G. But it takes more than a few electricians to get a good Ministry down. Would it not have been more sensible to have converted a row of genuine old sub-standard terrace houses? Or would that have been too sensible? If the Ministry has any sense of humour at all it cannot fail to call the new block Beachcomber Row.

DANISH SILVER AT THE TEA CENTRE

Georg Jensen, the Danish silversmiths, are holding a 50th anniversary exhibition of their work at the Tea Centre. You have two days left in which to see it. You may or may not find Jensen's beautifully made work dated in design, but let me urge you to see the exhibition because it has been quite excellently arranged by Finn Juhl.

POLISH ARCHITECTURE AT THE R.I.B.A.

On the other hand, if you want to be depressed, go to the R.I.B.A. and see the work that is going on, and is projected, in Poland. First of all, I was surprised at the large number of projects compared with completed buildings which are shown. No one is likely to have underestimated the task which faced the Poles but there has been such a song and dance during the last five years about the tremendous progress that they have made in reconstructing Warsaw that I expected to see more buildings and fewer wedding-cake models. The utter dreariness of most of the buildings makes even some of the projects for the City of London look good by comparison. The formal strait-jacket planning of whole areas was, I thought, dull beyond words. Everywhere and in everything, one saw the heavy hand of the U.S.S.R. and in view of this it was scarcely surprising that some (but only some) eyebrows went up when the Polish Ambassador referred to this year as the tenth since the "liberation of Poland." Spare a moment to think of the excellent work of the Polish University School of Architecture first at Liverpool and then in London.

In the repair of damaged historical buildings the Poles have shown a lighter and more skilful touch. A number of screens illustrate some of Poland's best historical architecture. The present architects seem to be unable even to copy these without making them look as if they have been carved from a solid chunk. At the opening of the exhibition I thought that perhaps my critical faculty had been affected by the vodka. I made a further visit to see whether my memory of the architecture could have been right. It was.

TRADES UNION LATEST

The results of the R.I.B.A. questionnaire on a trade union for architects have now been published. In order to explain them fully, no less than five tables are necessary. I find that by the time I have mastered the second I have

forgotten what the first was about. It is often said that statistics can be made to prove anything. This may be true but it seems to me that whichever way you examine the figures of this referendum, the majority of those who replied want a trade union. The actual figure was 62.9 per cent of those who replied, or 32.6 per cent of the total membership of the Institute. It would clearly be wrong to suppose that all those who did not reply were either opposed to or in favour of a trade union, but it would probably be fair to say that few people who felt really strongly that there should be a union failed to send in their papers. On the other hand, it is also only reasonable to assume that all those who felt strongly opposed to a union also sent their papers in. What happens now?

PROGRESS AT THE CHELSEA FLOWER SHOW

The general design of gardens at the Chelsea Show has for years brought groans from architects; while the design of garden furniture and ornaments has been so unrelievedly bad as to be ignored. This year there is a change. The C.o.I.D. has been invited by the Royal Horticultural Society to stage a display of outdoor furniture. All types are being shown and although many are familiar, either from the South Bank or from the Council's more recent outdoor seat and chair competition, there are others less well known taken from Design Review. In addition to things to sit on, the display includes tables and trolleys.

Perhaps next year something could be done about the design of the gardens, but that is to condemn too soon for I have not seen this year's yet.

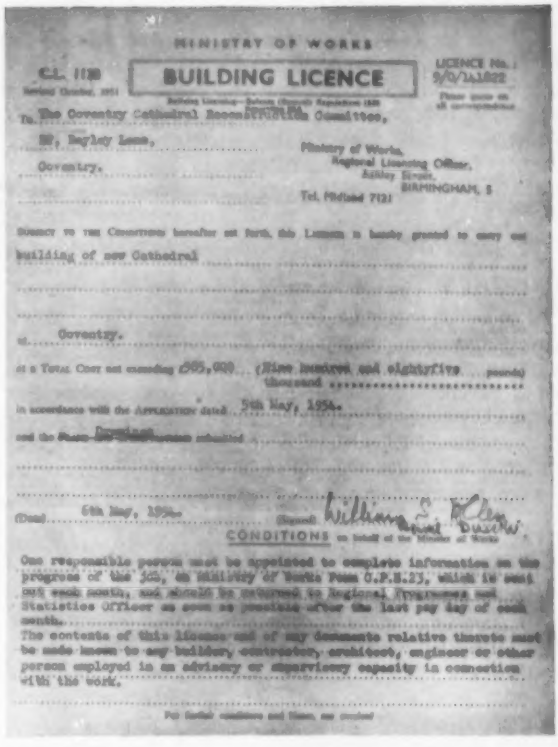
Design for part of Praga Station the new Warsaw Metro (second prize in the competition for station designs organized by the Association of Polish Architects).

NEW SCORE-BOARD

Just to show what a keen supporters' association can do if it tries I am including a picture of the new score-board at the Worcestershire County Cricket Club's New Road ground. It cost between £3,000 and £4,000. This ground is, or rather was, one of the loveliest in the country. Is it not odd that Tudor should have been chosen as the architectural style. And what Tudor, too. The Supporters' Association is contemplating further "improvements" at the ground. I suggest that it acquires two of B.R.s tavern cars and sets them up as wings. The last score-board stayed in for 55 years.

LICENCE No. 9/0/141822 DATED 5 MAY, 1954

It was a pleasant thought of the Coventry Cathedral Reconstruction Committee to have their unique Building Licence photographed for publication. As Mr. Basil Spence pointed out in his enclosing letter it is certainly the first time that a licence has been issued for the building of a whole cathedral, and it is perhaps unlikely that it will ever happen again.



MINISTRY OF WORKS

C.L. 1128

BUILDING LICENCE

LICENCE No. 9/0/141822

To The Coventry Cathedral Reconstruction Committee,
Mr. Bagley Lane,
Coventry.

Ministry of Works,
Regional Licensing Officer,
Ashley House,
BIRMINGHAM, 5
Tel. Midland 7121

Subject to the Conditions hereafter set forth, this Licence is hereby granted to carry out building of new Cathedral
at Coventry.
at a Total Cost not exceeding £95,000 (Ninety thousand pounds)
in accordance with the Application dated 5th May, 1954.
and the Plans [illegible] submitted
(Date) 6th May, 1954. (Signed) William S. Glen
Regional Director
CONDITIONS on behalf of the Minister of Works

One responsible person must be appointed to complete information on the progress of the job, on Ministry of Works Form C.P.S.23, which is sent out each month, and should be returned to Regional Controller and Statistics Officer as soon as possible after the last pay day of each month.

The contents of this licence and of any documents relative thereto must be made known to any builders, contractors, architect, engineer or other person employed in an advisory or supervisory capacity in connection with the work.

For further conditions and items, see overleaf

The building licence for the new Coventry Cathedral

SMOKE SHELF LATEST

On another page you will find a long and interesting letter from the technical manager of the C.U.C. While dissociating himself from the remarks made by someone—he suggests that it was another visitor—to my agent he goes on to say that the arguments against the smoke shelf outweigh those in its favour, but that the views of the C.U.C. are not particularly strong. Architects' and builders' opinions are wanted.

ROADS BEAUTIFYING ASSOCIATION

I have no doubt that attendances at Annual General Meetings would be higher if they were made more attractive by their organizers. The A.G.M. (over 100 attended) of the R.B.A. was this year held at the Winkworth Arboretum, near Godalming, by permission of the National Trust. But there was more to it than that. Dr. Wilfred Fox, who planted the arboretum and presented it to the Trust, and is Hon. Sec. of the R.B.A., provided a sumptuous picnic lunch in the most lovely surroundings.

HOLLAND PARK SCULPTURE

The L.C.C. exhibition of sculpture arranged in London's new public open space at Holland Park, in Kensington, opens to-morrow. Twenty-nine contemporary works will be displayed. To illustrate past tradition in sculpture two historical pieces are being included; a 12th-century Hindu piece, "the celestial drummer," from the V. & A., and a classic Greek statue thought to be of Dionysius from the eastern pediment of the Parthenon.

QUEEN MARY'S TREASURES AT THE V. & A.

An exhibition of treasures from the collection of Her Late Majesty Queen Mary opened at the Victoria and Albert Museum yesterday, Queen Mary's birthday. It will remain open until December 31. The exhibition includes some 80 pieces of furniture, 25 pictures, porcelain, and over 3,000 small works of art. Some of Queen Mary's dresses, hats and parasols will also be shown. More about this exhibition next week.

CAR PARKS OR WINE CELLARS

At a recent meeting of the Court of Common Council of the City of London a member raised the question of the rebuilding of the large areas of wine cellars lost in the bombing. He suggested that the provision of wine cellars was more important than the provision of underground car parks. The Chairman replied that in no circumstances would there be substitution of car parks for wine cellars. All right-drinking people will agree with this decision.

CORRECTIONS, SORRY

Messrs. Seely and Paget write to correct my error in attributing the work of restoring the cloisters at Eton College to them. It is being done under the direction of Sir William Holford.

The dining table in H.M. Yacht *Britannia* was specially designed for the job and was not one of the pieces transferred from the Victoria and Albert.

MISCELLANIA

It seems indelicate to have mentioned last week that the A.B.S. Ball will be held on December 9, particularly when we are still having to use fires to keep warm.

* * *

I hear that there were 238 entries for the Kirkcaldy Crematorium Competition. I would like to couple my congratulations to the Burgh authorities with my commiserations to Dr. Ronald Bradbury, the assessor.

* * *

Would a group including Low's cart horse be permissible in the T.U.C. sculpture competition?

* * *

A Canadian firm advertises a $16 million garden-city project where homes will be available in forty different architectural styles. What a pity they could not have made it 57.

TORTURED CONCRETE

Mr. Peter Peri has a one-man exhibition at the A.A. The works range from very small figures to large panels. Some of the former are pleasant enough but many of the latter are so distorted in shape as to be downright hideous as well as frightening. Mr. Peri seeks to persuade us that such concrete figures have a place in architecture. I remain to be convinced.

PRE-STRESSED CONCRETE

Concrete, Ltd., manufacturers of Bison Floors, have produced a new and excellent film on the production of pre-stressed reinforced concrete floor beams. It runs for 25 minutes, sticks to the point, and has no frills. It was made by the Film Producers' Guild, who also made the Stockton Test.

ABNER

NEWS OF THE WEEK

Representation of Architects in Salaried Employment

Following on the enquiry sent to members, the R.I.B.A. Council are studying what further action may be taken.

As a first step they have decided to hold exploratory discussions with the Association of Building Technicians without at this stage involving either side in any definite commitments.

The A.B.T. have agreed to this step and representatives for these discussions have been appointed by each party.

New R.I.B.A. Scale

The new R.I.B.A. Conditions of Engagement and Scale of Professional Charges come into operation as from June 1, 1954.

Copies can be obtained from the Secretary, R.I.B.A., 66, Portland Place, London, W.1, price 6d (by post 9d).

1919 Standards

During the committee stage of the Housing Repairs and Rents Bill in the House of Lords on May 18, Lord Silkin sought to substitute new standards of fitness for houses in place of those set out in clause 9. The clause requires that in determining whether a house is unfit for human habitation regard shall be had to the condition of the repair, stability, freedom from damp, natural lighting, ventilation, water supply, drainage and sanitary conveniences, and facilities for storage, preparation and cooking of food and the disposal of waste water. Lord Silkin proposed deleting these in favour of a declaration that a house should be regarded as unfit if it was not—free from serious dampness, satisfactorily lighted and ventilated, properly drained and provided with adequate sanitary conveniences and with a sink and suitable arrangements for the disposal of waste water, in good general repair, and had not adequate washing accommodation, adequate facilities for preparing and cooking food, and a well-ventilated food store.

He agreed that the clause was an improvement on the existing law, but contended that the standards in his amendment were higher still and more positive in character. He had taken the standards of fitness recommended by the committee presided over in 1945 by Sir Miles Mitchell, and commented that these had been laid down in 1919 in a *Manual of Unfit Houses* issued by the Ministry of Health, and substantially reaffirmed in the *Rural Housing Manual* issued in 1938. There was in the Mitchell report a much more rigorous standard of fitness than

the one he proposed should be incorporated in the Bill.

The Lord Chancellor, resisting the amendment, drew attention to another paragraph in the Mitchell Report which recognized the impossibility of applying the standard wholesale except at some time in the future when the housing conditions of the country permitted. The result of declaring a house unfit for human habitation, he pointed out, was to impose immediately on the local authority certain duties under the principal Act of 1936. It would be unrealistic to impose those duties now in the case of every house which did not conform to the standards required in the amendment. The application of the definition to-day was quite out of the question and would impose a wholly impossible burden on authorities; there would be tens of thousands of houses that would have to be dealt with. The clause itself did not make a house unfit if it did not satisfy every requirement, but only if the defect in respect of any one or more was so far-reaching as to render the house not reasonably suitable for occupation. That was as far as it was possible to go at present.

The amendment was rejected by 70 votes to 20.

Leverhulme Scholarship, 1954

The Leverhulme Scholarship, tenable at the Architectural Association School of Architecture, London, value £2,000, which includes payment of fees and maintenance for five years, has been awarded this year to Mr. H. T. Moggridge (Tonbridge School).

"The Duchess of Malfi"

The next production of Section A.A. Theatre Group will be "The Duchess of Malfi" by John Webster, at The Bolton's Theatre, June 12-15, at 7.30 p.m. Section A.A. Theatre Group is formed of members of the Architectural Association, with the intention of producing plays considered worthwhile, but seldom performed in the professional theatre. After the remarkable success of the last production in November which was sold out two weeks before the opening night, it has been decided to run this next production for four performances. Tickets will be available through the box office at the Architectural Association, Bedford Square, from May 10, or through individual members. Early application for tickets is advisable.

Institution of Heating and Ventilating Engineers

New premises for the Institution, at 49, Cadogan Square, were officially opened on May 10. The president, Mr. Walter Harding, welcomed the guests to an "at home" to inspect the building, which is in one of the quietest squares in London. The premises were purchased on October 9, 1953, on a 70-year lease, and the Institution moved in on November 20, 1953.

ANNOUNCEMENT

Mr. Wells Coates, O.B.E., F.R.I.B.A., M.R.A.I.C., and Miss Jaqueline Tyrwhitt, A.I.L.A., A.M.T.P.I., have dissolved their association in this country by mutual consent.

Mr. Wells Coates has taken into partnership Mr. Michael Lyell, A.A. Dip. (Hons.), A.R.I.B.A., and the firm will in future be known as "Wells Coates & Michael Lyell" with offices at 16/18, Yeomans Row, Brompton Road, London, S.W.3 (Kensington 9252 and 9253). Mr. Michael Lyell will also be associated with Mr. Wells Coates in his Canadian practice under the style of "Wells Coates Associates" with temporary offices at 717, Church Street, Toronto, Ontario, and later at Iroquois, Ontario.

APPOINTMENTS

Mr. R. M. Hopkins, A.M.T.P.I., at present holding the position of Deputy Planning Officer, South-East Area Planning Office of the Somerset County Council at Yeovil, has been appointed Chief Assistant in the County Planning Department of Breconshire County Council. The salary grade is £710 to £785.

The Borough of Romford has appointed Mr. K. Michael Tobarzy, D.A. (Edin.), A.R.I.B.A., A.R.I.A.S., as Assistant Architect, Grade VI, £695-£760.

Mr. Kenneth W. Dunn, A.R.I.B.A., of Cheltenham, Glos, has been appointed assistant architect on the staff of the County Architect's Department, Isle of Ely County Council, Grade V, £620-£670.

Mr. H. N. Ash, A.A. Dip., A.R.I.B.A., of Swindon, has been selected for the post of Assistant Architect, Grades VI-VII, £670-£785, on the staff of C. A. Pilkington, Esq., L.R.I.B.A., Housing Architect, City of Nottingham.

The War Damage Commission have appointed Mr. Percy V. Burnett, F.R.I.B.A., to be a Deputy Commissioner. He will be concerned mainly with cases in and around London and the Home Counties.

COMING EVENTS

The Royal Institution of Chartered Surveyors

May 31, at 5 p.m. The Annual General Meeting of the Royal Institution of Chartered Surveyors to receive the Council's Report for the Session 1953-54, to be held at 12, Great George Street, London, S.W.1.

The Council for the Preservation of Rural England

May 31, at 2.30 p.m. Annual General Meeting at the R.I.B.A., 66, Portland Place, W.1. The Rt. Hon. Harold Macmillan, M.P., Minister of Housing and Local Government will address the meeting.

Allied Societies

At the A.G.M. of the Northamptonshire, Bedfordshire and Huntingdonshire Association of Architects held at Northampton on May 14, the Chairman, Mr. J. T. B. Neville, L.R.I.B.A., spoke of the concern felt by architects at the work being carried out by unqualified persons, and said that if an unqualified man were to practise as a doctor he would be liable for prosecution. Mr. Neville congratulated the County Architect of Northamptonshire, Mr. A. M. Harris, F.R.I.B.A., on his election to the newly formed body of Governors of the Northampton Central College of Further Education as the Association's representative.

The following officers were elected: Chairman, Mr. J. T. Neville, L.R.I.B.A.; Vice-chairman, Mr. J. F. Goff, A.R.I.B.A.; Secretary, Mr. D. C. Small, A.R.I.B.A.;Hon Auditor, Mr. D. R. Johnson, A.R.I.B.A. Committee: Miss E. B. Allen, Mr. F. B. Allen, L.R.I.B.A., Mr. P. B. Copson, L.R.I.B.A., Mr. S. E. Dodson (Peterborough), Mr. H. C. R. Frost, L.R.I.B.A., Mr. S. S. Harrison, Mr. T. R. Jolley, L.R.I.B.A., Mr. P. J. H. Panter, A.R.I.B.A., Mr. W. Rosser, F.R.I.B.A., Mr. E. A. Roberts, A.R.I.B.A., Mr. J. M. I. Scott, A.R.I.B.A., Mr. C. H. W. Smith, Mr. R. V. Trigg, L.R.I.B.A., Mr. H. D. Williams, A.R.I.B.A., Mr. E. J. Storry, A.R.I.B.A., Mr. A. N. Harris, F.R.I.B.A. (Northants County Architect), Mr. B. Bunch, A.R.I.B.A. (Northampton Borough Architect), Mr. A. W. Wilson, F.R.I.B.A. (Peterborough), Mr. G. W. Rhodes, A.R.I.B.A. (Kettering). Junior Architects' Committee: Mr. J. R. Pound, A.R.I.B.A. (Chairman), Mr. D. R. Kightley (Secretary), Mr. J. R. Atkinson, Mr. J. E. Collins, Mr. J. F. Goff, A.R.I.B.A., Mr. R. B. Hall, Mr. D. M. King, Mr. M. J. Long, Mr. D. C. Small, A.R.I.B.A., Mr. C. H. W. Smith, Mr. R. V. Trigg, L.R.I.B.A., Mr. M. W. Wilkinson and Mr. R. Klapprott.

SYMPOSIUM ON MIX DESIGN AND QUALITY CONTROL OF CONCRETE

RECENTLY the Cement and Concrete Association organized a three-day symposium in London on mix design and quality control of concrete, attended by some 170 representatives of architects, contractors, consultants, municipal and Ministry engineers and countries overseas. Twenty-two papers were presented and discussed, covering a wide range of subjects, from the requirements of frost proofing to the effects of steam curing of concrete. Although at first sight these subjects may not appear to be within the architect's field, a little reflection will show that their effects will have far-reaching consequences in his future designs.

Concrete is at a stage in development similar to that reached in steel manu-

facture some 50 years ago, where the properties may be predicted with increasing accuracy and the techniques of manufacture result in a more uniform material than hitherto. The increased strength of steel as opposed to wrought iron in the last century made possible the great strides in bridge design towards the slender bridges of large span we know to-day. The great increase in strength of concrete obtained in the last few years by attention to mix design and control of its manufacture enable the architect to specify light attractive sections where before these would have to be of such a size as to appear cumbersome.

The new technique of prestressing concrete allied to the shell roof enables large floor areas to be covered without the need for unsightly columns, a fact which designers have been quick to apply to factories, assembly halls, bus garages, and so on. Both shell roofs and prestressed concrete beams require concrete that is both uniform in properties and of high strength. The need for a conference to discuss ways and means of obtaining these should therefore be clear.

Most of the papers and subsequent discussion were devoted to the accurate proportioning of the sand, aggregate, cement and water in such a way that the mix could readily be placed and give the required degree of strength. Since a minimum strength is specified for each concrete structure or member it is not surprising that a major theme throughout the conference was the method of obtaining concrete with a low variation, whether expressed mathematically or otherwise, in strength. Concrete becomes easier to place or more "workable" when water is added; it also loses some of its strength and becomes more liable to frost attack, but to achieve full compaction round reinforcing bars the mix must be sufficiently workable to flow as a stiff liquid.

Other factors which influence the workability are the shape of the sand and aggregate particles, the grading of the sand and the mix proportions. All these must be considered by the mix designer to achieve the desired results, the old formula of "one, two, four" being quite inadequate. Vibration of concrete has enabled very dry, very strong mixes to be compacted which, having a low workability, could not be compacted by hand, but this in its turn brings problems of mix design if trouble is not to develop.

This symposium, with its interchange of ideas on a very important subject by many interested parties, should have far-reaching effects on the design and construction of concrete buildings, etc., in the next decade. Concrete technology has made great advances since the war, perhaps greater than many not intimately concerned may have realized, and the tempo is increasing, making possible spans and architectural effects undreamed of 20 years ago.

J. M. PLOWMAN.

THE WOOD BICENTENARY

SATURDAY, May 15, duly saw the opening, by Mr. George Howard, the Chairman of the York Georgian Society and owner of Castle Howard, of the Exhibition, arranged in the Octagon at Bath, of the architecture of John Wood the Elder and contemporary work in this country, in Colonial America, and in various parts of Europe. Mr. Howard's performance of the ceremony, accompanied as it was by some excellent and helpful remarks, was attended by many members of his York Society, who took the opportunity to pay a week-end visit to Bath.

At the Exhibition an effective centrepiece, comprising a paper bust of John Wood and a pavilion-like group which supports the flags of the countries whose buildings are shown (plus that of Spain, whose architecture is absent) catches one's eye on entering the Octagon from Milsom Street. The bulk of the display itself is photographic, but a few drawings and letters are among the most important things on view. The pictures are arranged on screens of varying, and contrasting, colours, and the mounting of the Exhibition has been the work of members of the Bath Group of Architects, by request from the Management of the Bath Assembly.

Though it now seems most likely that Wood the Elder was born in Bath itself, the fact has not yet been authenticated 100 per cent, and a claim can still be put in by Yorkshire. It is certain that Wood was in Yorkshire during his early days, and that he worked for Lord Bingley on subsidiary buildings and garden design at Bramham. It is therefore appropriate both that a Yorkshireman should have been asked to open the Exhibition, and that the photographs include a high proportion of work in Yorkshire or by Yorkshire architects; one's main surprise, in such a city of crescents, is that the views of Carr of York's work do not include one of the crescent at Buxton. Yorkshire apart, the photographs naturally go out of their way, when showing the work of English architects, to include buildings which are within reasonable distance of Bath or Bristol.

The work of Wood the Elder himself, in Bath or elsewhere, is naturally well represented, and a portrait of Wood is fitly wreathed in commemoration. The main new point comes with the display of some original letters, and of photographs to back them up, which prove that Wood was responsible, from 1728 and for the next few years, for the design of Tyberton Court in Herefordshire (whose recent demolition led to the discovery of the letters which are the only known autograph letters of Wood the Elder), and of the remarkable carved woodwork which adorns the round-apsed sanctuary of Tyberton Church. The letters also throw valuable light on the incredible difficulties which in those days beset water transport, particularly when access was by so unreliably navigable a river as the Wye. It is also good, among the other evidences of Wood's work, to find that space is given to Wood's little-known and extremely drastic Palladianization of part of the Cathedral at Llandaff (see *Architect and Building News*, September 17, 1948).

The photographs of work by other architects in Britain show buildings by everyone of note who was closely or reasonably contemporary with Wood, ending up with Taylor, Carr and Paine, and including also a hint of the Grecianism to come with a photograph of "Athenian" Stuart's "pure" Doric *tempietto* at Hagley. There could not, in the circumstances and with the space available, be more than a small selection of our wealth of early Georgian material, but it is a pity that the Wincanton (Somerset) architect Nathaniel Ireson's work could not have been shown, and that there is no photograph of the lovely "rococo Gothick" chancel at Bruton, which may have been his. It is good, however, that several local or minor figures, the Bastards of Blandford, for instance, and Strahan of Bristol and Bath, are represented. Very rightly, the chief place among other British architects goes to Gibbs, for he, too, died in 1754 and the photograph of his bust in St. Martin-in-the-Fields is likewise wreathed. The whole of this section on our general corpus of Georgian architecture is a good antidote to an excess of particularism, and to any undue concentration, even at such a time, on the local hero.

Some visitors will perhaps find the photographs of foreign architecture as interesting as anything in the display. Here, too, there can be no more than a selection just large enough to indicate something of what was being done about the first half of the eighteenth century. In some cases, the Portuguese section, for example, one finds Baroque work which Wood could not have failed to find highly unsympathetic. But work in other lands, particularly as shown in America, in the interesting Danish section, and in the all-too-scanty evidence of neo-Palladianism in the Netherlands, was in some instances much more akin to what John Wood the Elder and his contemporaries were doing. In any case, it was a most happy idea by which one is afforded these foreign comparisons in the Bath Exhibition, and it was right and proper, on May 22, when the unveiling of the plaque on Wood the Elder's house in Queen Square, and other ceremonies on that day, were attended by representatives of some of these other countries, including the Ambassador of Italy, to which culturally fruitful country we owe, after all, the essentials of our Palladian inspiration.

BRYAN LITTLE.

Photo : Belfast News Letter Ltd.

On May 8 Lord Wakehurst, deputizing for the Duchess of Gloucester, officially opened the new Institute of Clinical Science, Queen's University, Belfast. Lady Wakehurst, with a key presented to her by Mr. John Murray Easton, whose firm Messrs. Easton & Robertson were the architects, formally opened the main door of the West Block. The new building, which cost about £¼m., comprises two separate blocks linked by a bridge.

CORRESPONDENCE

Smoke Shelf

To the Editor of A. & B. N.

Sir,—I have been disturbed at the report on p. 478 of your April 29 issue of your agent's recent visit to the Coal Utilization Council's Training Centre in London. I have tried, without success, to find out who made the startling remarks quoted and can only think that it may have been one of the many other visitors to the Centre on that occasion.

The C.U.C. does *not* consider the smoke shelf a "first-class evil." Moreover it has no evidence that the London Fire Brigade attributes the majority of chimney fires to this detail and cannot presume to speak for them. Finally, the idea of soot absorbing highly inflammable volatile gases seems a little fanciful, though there is little doubt that chimney fires have been known to be started by the ignition of soot on the smoke shelf. The use of the word "detonator" is unfortunate since it could suggest an explosion, which certainly would not occur.

I would like to state clearly the technical policy of the Council on the smoke shelf—a policy which has certainly not changed in five years. We have always said there are pros and cons—our Training Centre lecture notes of 1949 and 1954 show this—but that we feel there is rather more to be said against the smoke shelf than for it. That there is a considerable volume of official expert agreement with this view is clear from the Codes of Practice on Flues (131.101 (1951), p. 24) and on Open Fires, Stoves and Cookers (403 (1952), p. 21), both of which say "There is insufficient evidence on which to judge the probable value of a smoke shelf, but it has been found that, in some circumstances, it helps to reduce the risk of smoke entering the room due to downdraught."

The latter Code shows two constructions, one (Fig. 5) with a smoke shelf, but with a sloping line dotted in, marked "Section if smoke shelf not used," whilst the other (Fig. 6) shows no smoke shelf.

It is true that "Principles of Modern Building," and the Building Research Station Digest No. 18, recommended Rumford's construction which includes a smoke shelf, but these are not separate authorities as one was taken from the other. The former was published in 1938-39, and the latter in 1950. The two codes of practice referred to were both later (1951 and 1952). It would be interesting to know the Building Research Station's present view.

We consider points in favour of the smoke shelf to be:

(i) It is capable of arresting downdraughts of the short puff type—though not a steady downdraught.

(ii) It helps to prevent soot and rain or hail—which falls down the chimney—bouncing off on to the tiled hearth.

Points against, in our opinion, are:

(i) It forms a cavity in the flue which is bad in principle since eddying of smoke is bound to occur there. The British Standard B.S. 1251: 1945 (Open Fires) showed illustrations of two constructions, one of which incorporated a smoke shelf, with the remark that there was not sufficient evidence to show which was the better. As a result of seeing both constructions side-by-side in 1949, an amendment slip was inserted, deleting both illustrations and the references to them in the text. The construction with a smoke shelf was seen to have two throats with an appreciable cavity between them.

(ii) The sides of the shelf, as suggested by Rumford, and reproduced in "Principles of Modern Building" and B.R.S. Digest No. 18, appear to have no function anyway. Being within the gather, they form pockets which could stop neither downdraughts nor falls of soot or hail. The Code of Practice on Flues (pp. 54, 55) omits them in any case.

(iii) Even on the back portion of the shelf, soot is bound to build up. Ideally this should be cleared at frequent intervals but it is a dirty job and seldom done. This means (a) that the "shelf" is no longer a shelf and (b) that there is a possibility, with a long flame coal or wood, of this accumulation catching fire and even setting fire to the whole chimney. We know of no statistics, however, to suggest what proportion of chimney fires is started in this way.

On balance, we feel that the arguments against the smoke shelf outweigh those in its favour, but our views are not particularly strong, and we would welcome the opinion of architects and builders on the question.

I am, etc.,
W. C. Moss,
Technical Manager,
Coal Utilization Council.

Lake Shore Drive

To the Editor of A. & B. N.

Sir,—We are glad to read that Mr. Cotton has the support of only 1 per cent of the profession when he infers that we should make our buildings tell lies in the words "truth is never objective," and the senses are concerned only with the objective."

We should all be grateful that this minority cannot get their spiritual message over to the majority, and so give us more adjacent cigar boxes in the "Mies" manner.

We are, etc.,
D. J. Cannon.
John R. Spratley.

THE ARCHITECT and Building News, 27 May 1954

THE DESIGN OF NEW SCHOOLS

Extracts from the Alfred Bossom Lecture given before the Royal Society of Arts on 19 May, by C. H. ASLIN, C.B.E., F.R.I.B.A., *County Architect, Hertfordshire. Sir Griffith Williams,* K.B.E., C.B., *in the Chair*

UP to the end of the war the country had a system of compulsory primary education, with the result that education authorities had a duty to provide buildings for elementary education, but for secondary education they were free to determine what secondary buildings appeared to be necessary.

The 1944 Education Act, however, made a sweeping change, in that education authorities were given the task of providing secondary education for all; with the result that it became necessary to provide a very large number of secondary schools. In addition, the war left us with a number of damaged and destroyed buildings to replace, and the swelling birth-rate after the war gave rise to a demand for large numbers of primary schools.

Another aspect of this problem was the disperal of population, particularly in the Home Counties from Greater London, in L.C.C. housing estates and the New Towns, and in these places new schools both for primary and secondary education had to be provided for the new-comers. The magnitude of the task through the country can be judged by the fact that the Ministry of Education has been spending through local authorities approximately £50,000,000 per year on school buildings. These conditions created what was probably the largest architectural task ever undertaken by public authorities, and it is to the credit of all concerned that so large a part of it has been completed.

All the great contributions to the architectural worth of this country, or indeed of any country, have been produced by a combination of first-rate clients and competent architects. It is too early to say whether any real architectural contribution has been made, but we can at least say that the conditions for producing it are present. It will certainly be a very black mark against the profession if the opportunity afforded by this huge programme has not been put to such good purpose that some considerable contribution has not been made, both in the field of architecture and the development of new techniques.

It is, of course, more difficult for architects to work with the public as a client than with private clients, because of the inherent problem of getting an appropriate brief with a client so nebulous as the public. On the other hand, the task has been run as a combined operation with the education

authorities, the Ministry of Education and education staffs (which includes all interested parties such as supervisors, headmasters and headmistresses, and teaching staff), each contributing their own special knowledge to enable a satisfactory brief to be prepared.

The Ministry of Education has contributed very largely in two ways. In the first place, regulations have been eased, thus giving the architects greater freedom to provide a suitable building, and the time for approval has been very much reduced; and secondly, the Ministry has set up a staff of architects in its own department, who have not only helped materially in the way of producing approvals, licences and the like, but have themselves erected and are still erecting a number of school buildings from which they can become acquainted by experience with the practical problems which assail the architects building schools for local authorities.

The problem was not only one of producing an appropriate number of new buildings, but of producing them quickly, because nothing could be worse than having children in any locality without sufficient buildings to house them. This matter of speed naturally presented a grave problem, because immediately after the war there was a tremendous shortage of building materials and building labour, and the designers necessarily had to turn their attention to new techniques, new materials, and the provision of new labour, in an attempt to satisfy the time factor.

The object of pursuing new techniques was to cut down the work on the site by the provision of components made under good conditions in factories, and their speedy erection by the operatives who made them; leaving only such site works as drains, roads, and foundations, to be carried out by normal methods.

It can be said that this new approach has succeeded in providing much faster building at prices within the Ministry's approved range, although considerable savings in cost have not yet been effected because a number of the materials used, being new, are relatively expensive. There is, however, every reason to hope that since a large number of designers, manufacturers, and builders, have become interested in the method, in due course there will be greater selection of materials, and the costs will drop.

It will, of course, be pointed out that in various parts of the country the use of—for want of a better term—"traditional methods" have resulted in the provision of buildings at no greater cost; this, however, is only true of areas in the country where the demand for materials and labour has been less than in others. In the Home Counties, however, the demands of Greater London, the New Towns and the L.C.C. housing estates, have been such that without the introduction of new methods, new labour, and the cutting out of as much site labour as possible, the contribution to the school programme would have been practically nil.

In this age of highly developed mechanization it would appear to be appropriate that the building trade should gain some advantage from such an outlook, and remove itself from the position of having to work under conditions which are probably worse than those in any other industry. It was, therefore, considered that the way to rationalize building construction was to manufacture in comfortable and, therefore, more efficient conditions, as many parts of a building as possible, leaving as little time to be spent as is practicable on the actual site.

The introduction of this method of reorganization of the building industry ties up quite naturally with this large

educational programme, because it would be quite impossible to put it into effect without a large and continuing volume of work to be placed in the hands of manufacturers, who could be persuaded that such rationalization was not only sensible, but a good business proposition. This approach to building has been used almost imperceptibly during the past fifty years, and commenced with specialists making such things as joinery, standard windows, and indeed standard everything which could produce the goods as well or better than the individual builder, and at a price which was attractive. It is only a small step from this natural development to an attempt to rationalize the whole building and to produce a condition where most of the materials needed could be pre-made and transported to the appropriate site where they were in fact needed.

This method has another very important and attractive result in that new labour, as an additional force to the building industry, is provided in factories, and this new labour is also provided on sites, if the people who make the various parts also fix their goods in the building. This method has been loosely referred to as prefabricated as opposed to what is again loosely called traditional methods of building, but if the matter is looked into more deeply I am sure it would be agreed that this approach is appropriate to the mechanized age in which we live, and ultimately will be seen to fall into a pattern of a continuing tradition.

Another result of this approach is the high degree of co-operation required between manufacturers, engineers and architects, which results in better design, more economical production and a very large elimination of waste which has always been associated with the industry. In the past both labour and materials have been relatively cheap, and there has been no real incentive to economize or to make much attempt, if any, at eliminating wasteful design, and it seems clear that under modern conditions, more and more mechanization must be introduced into building operations, in order to reduce costs and increase production. This will become increasingly necessary as costs of labour and raw materials continue to rise; indeed in a modern community the tendency is to aim at higher standards of living for all, and the cost of labour must always tend to increase, so it is essential to use more rationalized methods in building, so that building prices will not continue to rise; indeed, if they do it is inevitable that a position will arise where the client, whether it be the public or private individuals, will be compelled to restrict building, with consequent disaster to the building trade.

At this stage it would be appropriate to enquire what main changes have taken place in school design, and we shall find the answer not in the various detailed alterations which have been made in planning since the inter-war years, but in the complete change in outlook of the profession.

Before the war we had somewhat rigid regulations about the number and sizes of classrooms, which were issued by the Board of Education, and a skilful approach by the architect, and ability to combine the various units into a formal pattern, was required to build the whole into a miniature monumental structure. There was little or no critical approach or guidance from the educationists, and there was certainly no realization that the real client was a child whose environment was being fixed during its school life; nor was any real attempt made to provide a building in which teaching staff could operate to the fullest advantage. This rather negative approach has fortunately been completely superseded, and attempts are constantly being made to provide a building which is in scale with the child and where every part of the structure endeavours to provide a working place where the business of educating the young can be carried out to the greatest advantage to them. In other words, school buildings of later years have an external appearance which grows out of planning for use, and this is quite the reverse of the formal approach where the structure was designed as a building to look at and where it was hoped that the result would be a building in which teaching could be carried out adequately.

The standard of pre-war structure, with its long corridors, rectangular classrooms and adult-scale buildings and furniture, has given way to a fluid pattern of rooms and almost total elimination of circulation space; and a real attempt to give both the structure and its contents an appropriate scale to fit the small people who inhabit it for the greater part of their early years.

It is true to say that it is not only the school building programme which has had a tremendous impact on architects, but the fact that, since 1945 especially, and generally since 1919, more and more building has been carried out by architects employed in government and local government offices than formerly.

In the early days of this century, by far the greatest percentage of work in this country was carried out by private architects for private individuals and organizations. It is true that at that date local government organizations had authority to build a variety of structures such as schools, markets and other buildings connected with the requirements of the various operations for which they were responsible. The first large-scale building for which local authorities were responsible by statute was housing, but since 1919 the volume of work they have had to undertake has increased, until the 1944 Education Act increased not only the volume which it was permissible to do, but enormously increased the volume which they were compelled to do by Act of Parliament. The effect of this has been to produce a programme which could be carried out either by architects in private practice, or by departments set up by the local authority.

The bulk of authorities have elected to carry out the work by the latter method, though most of them have, in addition, been able to provide commissions for private practitioners. What all this means to the profession is that whereas at the beginning of the century by far the greatest part of the commissions was carried out by private practitioners, at the present time the position is becoming reversed; indeed, fifty years ago the profession was roughly divided into two parts—qualified architects who carried on practices; and a large number of people who were known as architectural assistants whose knowledge was gained by practice and who had no prospect of becoming practitioners in their own right, and they were content to accept posts assisting architects with no thought of ever doing anything else.

The position now, however, is vastly different, and almost all young architects enter the profession already qualified architects by examination, and they are able to act in their various degrees as fully qualified members of the profession from the moment they start. Their training and ability are naturally quite different from those of the people in the past who were content to act as assistants to qualified architects, and this fact creates a new problem in the profession as to how they should be remunerated.

It is quite clear that none but a tiny proportion of those who enter local government service can hope to obtain the better paid and more responsible posts, but it is clear that by virtue of their training and qualities they ought to be paid at a higher rate than that which has, in the past, been offered to the assistant working under the immediate direction of a qualified architect. Some method must be discovered of appropriately rewarding architects in this new pattern, which as far as one can possibly say that anything is permanent, appears to have come to stay.

In the remainder of his lecture Mr. Aslin discussed and illustrated examples of recent school buildings.

I

General view of the front. The fascia is "walnut" travertine with wooden letters painted gold and terra-cotta. Lighting box, sashes and doors are teak. Stallriser black granite and lobby floor travertine. Window backs are faced with strips of bleached mahogany.

Alterations to Men's Wear Shop, Victoria Street, S.W.1

ARCHITECTS: WESTWOOD, SONS & HARRISON, F.F.R.I.B.A.

General:

The requirements were to remodel the existing ground-floor shop in order to increase the show window space and make the interior as spacious as possible. A clothing department was required in the basement in lieu of the barber's shop and the showroom area increased by reducing the existing stock room. As there is a long lease the shop must be carried out in materials that will last and will require the minimum of up-keep. The shop must have a contemporary character, but at the same time must not be designed in such a way that in a few years it would appear to have dated.

In designing the new shop it was soon realized that false ceilings at various levels would be necessary to hide the existing unsightly beams and their connections with internal stanchions. A deep plated beam supported internally by three large stanchions runs longitudinally from the front to back of the premises; one of these stanchions being in the centre of the left-hand show window. The ceiling treatment to the ground floor resolved itself by having a lower suspended acoustic tile ceiling at the level of the underside of the plated beam on the left-hand side of the shop and carrying this across the wider part of floor at the rear. A floating ceiling of fibrous plaster just below a central cross beam simplified the upper ceiling. One of the internal stanchions has been lost behind the tie fitting and the other has been emphasized as part of the design.

The Front:

By creating a spacious lobby four show windows were made possible and in addition a small showcase has been placed at the side of the entrance to the offices on the first floor. A completely open front was not considered desirable, but by having a clear glass back to the window at the side of the entrance door a good view of the interior from the street has been obtained. By the arrangement of the window backs one is hardly conscious of the objectionable stanchions in the window area. The doors, window sashes and fascia lighting box are teak, the fascia and lobby floor are in unstopped "walnut" travertine. The stallriser is black granite. Fascia lettering is wood with gold leaf on the face and terra-cotta paint on sides. The window backs are bleached mahogany.

Ground Floor:

General purpose fittings and ties have been kept at the front of the shop with shirts and sports wear, etc., at the rear. All merchandize is readily visible for the customer to inspect and is not kept behind glass. Roller dust blinds are incorporated in the fittings for protection when the shop is closed. All fixtures are in walnut. The acoustic tile ceiling is painted dove grey and the upper ceiling pinky white.

The continuous trough lighting over fittings consists of natural fluorescent tubes ballasted with tungsten. A con-

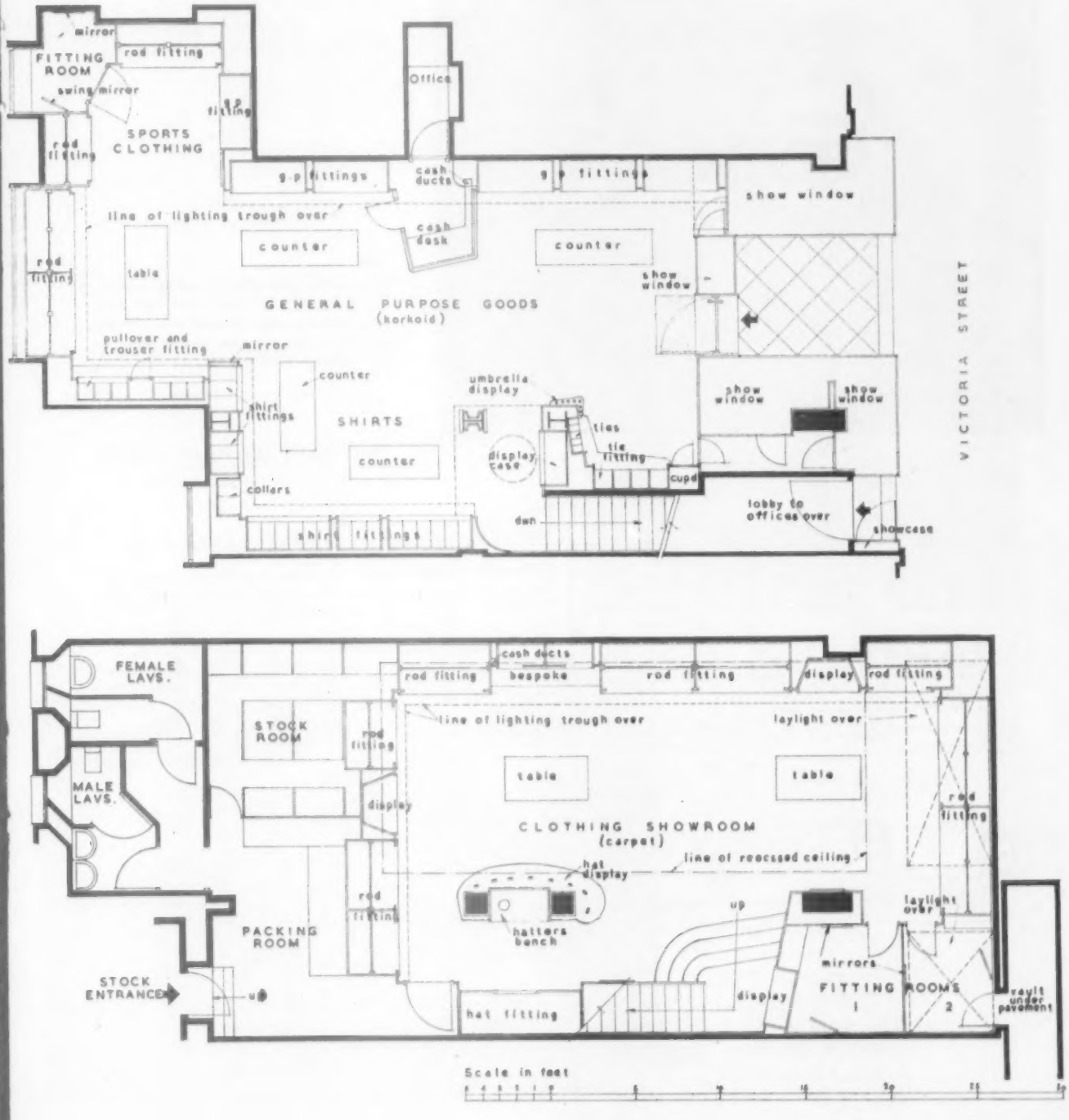
cealed cold cathode tube runs around the edge of the lower ceiling and the dome at the top of the stairs. The square ceiling light fittings are also a mixture of fluorescent and tungsten with their underside made of glass rods. All the light fittings were specially designed by the architects.

Staircase and Basement:

The narrow existing staircase down to the basement had to be retained, but by modifying the bottom few treads and landing and placing a new handrail outside the existing string, an improvement in width was made possible. The light fittings are recessed into a set back in the party wall above ground floor level. The ceiling to the existing barber's shop was lengthened and a new partition formed between the showroom and stock room is made by clothing fixtures. The ceiling on the staircase side was similarly lowered to hide the existing beams.

The two internal stanchions have been incorporated in a hat display fitting. Between the stanchions is a hatter's bench where hats can be brushed and cleaned.

[*Continued on page 633*



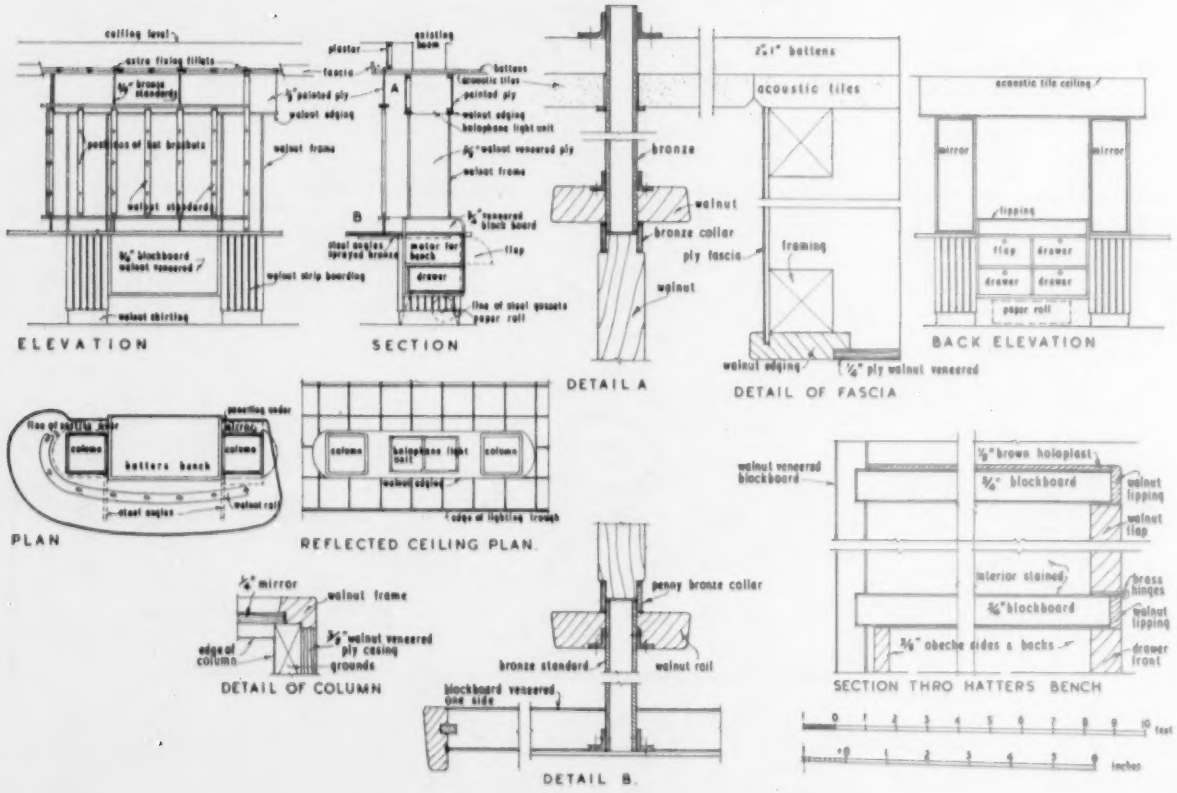
Alterations to Men's Wear Shop, Victoria Street

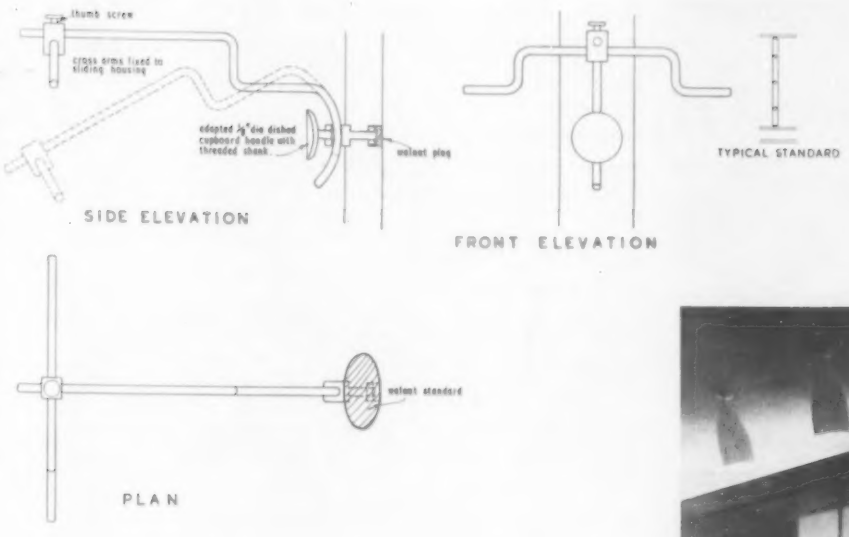
ARCHITECTS:
WESTWOOD, SONS & HARRISON, F.F.R.I.B.A.

Assistants-in-charge:
NOEL BRANDON-JONES & PETER WATSON, A.A.R.I.B.A.

View on the ground floor looking towards the front of the shop with the shirt department on the right and also showing the top of the staircase leading down to the clothing department in the basement.

Hat display and hatter's bench





Hat fitting bracket ½ F.S.

Detail of the hat display and hatter's bench. The fitting was designed in the manner shown to hide two large existing stanchions and their connections with a plated beam which runs immediately above the acoustic tile ceiling.

A new lay light has been placed below the pavement lights and given a certain amount of natural daylight to this end of the showroom.

The materials and colour scheme were similar to those used on the ground floor, but the floor is covered with a light fawn carpet with a small spot pattern.

Services:

Heating is by thermostatically controlled electric convector heaters. A cash hoist runs directly up from the basement into the cash desk on the ground floor above.

View of the clothing department in the basement. The staircase balusters are bronze and natural anodized aluminium with a mahogany handrail and the carpet is a light fawn colour with a spot pattern. Other materials used are the same as those on the ground floor.

General Contractors:
Hall Beddall & Co., Ltd.

Acoustic Tile Ceilings:
Horace W. Cullum & Co., Ltd.

Carpets and Chairs:
Heal's Contracts, Ltd.

Heaters:
E. K. Cole, Ltd.

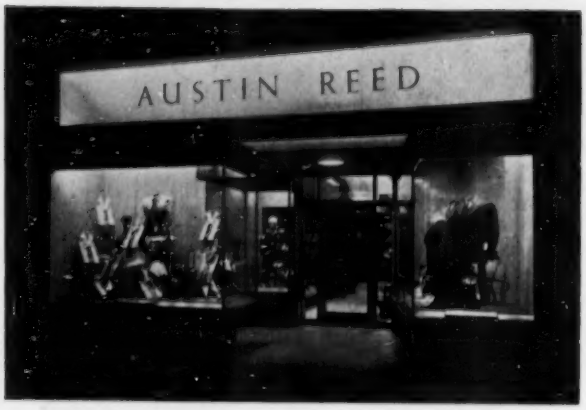
Ironmongery:
Yannedis & Co., Ltd.

Lighting Fittings:
Holophane, Ltd.
Courtney Pope, Ltd.
Venreco, Ltd.

Marble and Granite:
Fenning & Company, Ltd.

Shopfitters:
Harris & Sheldon, Ltd.

Staircase and Ground floors:
Korkoid Decorative Floors.



New Shop Front for Men's Wear Shop, Princes Street, Edinburgh

DESIGNED BY WESTWOOD, SONS & HARRISON, F.F.R.I.B.A.

Assistant Architect : N. BRANDON-JONES, A.R.I.B.A.

Requirements:

The existing shop front consisted of two rather deep windows with a central door. For a Men's Wear business at least four windows were required in order to display the various types of different goods.

The New Front:

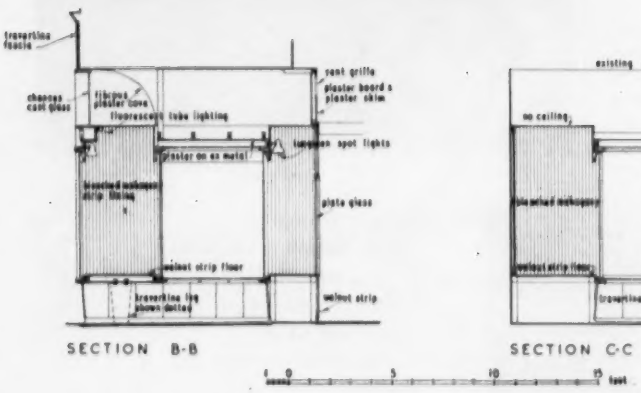
In order to achieve the above a recessed lobby has been formed with a large display window for clothing and three smaller ones for shirts, ties, etc. The door has glazed side panels in order to give a reasonable view of the interior and, at the same time, give an air of spaciousness. Similarly the showcase on the left of the front is partially supported on a travertine leg in order to increase the apparent size of the lobby.

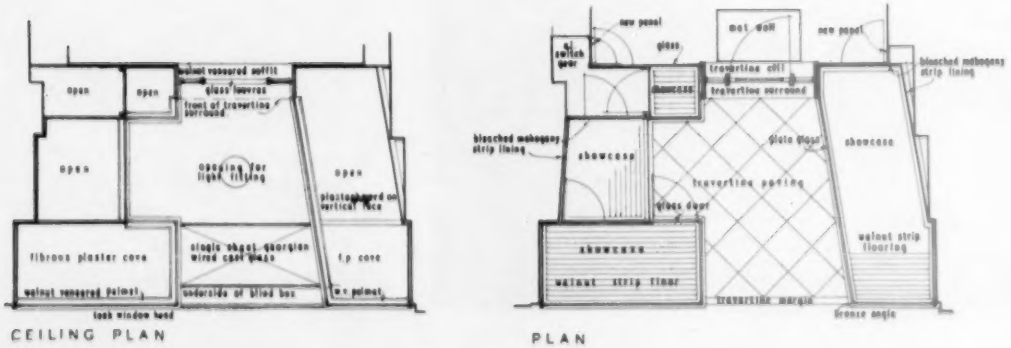
The fascia is formed of cast glass with a fibrous plaster cove behind it running the whole width of the frontage, thus admitting daylight and reflecting it down into the windows and through a daylight into the lobby. At night the window lighting is reflected up and evenly illuminates the fascia and at the same time silhouettes the lettering. This system is particularly effective on a rainy day when the shop blinds are out, as the windows appear to be well lit even without the artificial lighting being turned on.

Materials:

Upper fascia, stallriser and lobby floor—walnut travertine. Cove next floor—black granite. Window sashes, blind lath and door—teak. Window backs—bleached mahogany. Emblems on upper fascia and back-plate to door are stove enamelled in bright colours.

Shopfitters: Messrs. Heggie & Aitchison, of Edinburgh.





South elevation

HOUSE AT ST. MARY'S PLATT, KENT

architects: Cassidy, Farrington & Dennys

SPRING Cottage, St. Mary's Platt, Kent, is on the south face of the escarpment a few miles north of Maidstone. Access to the site is from the south and the main entrance to the house is consequently on the end. The north and west boundaries are on a 4-acre private wood to which the site has access.

The foundations, generally 2ft 9in deep, are the reinforced concrete strip type 2ft by 9in with ½in dia steel bar reinforcement. The facing bricks used in the outer leaf of the cavity walls are High Brooms Silver Grey seconds. The inner leaf is made of 4½in Broad Acheson vibrated load-bearing clinker blocks; there is a two-inch cavity between. The weatherboard panel is of ex. 4½ by 1in tongued and grooved boarding, on building paper, fixed to 1½ by 1in battens that are plugged to an inner lining of 8½in Broad Acheson blocks. The internal partitions generally are 4½in brick on the ground floor and 2in Broad Acheson blocks at first-floor level. Finish to all internal wall surfaces is Gypsum plaster on a 1:1:6 backing coat.

Windows are generally standard metal casements in special section wood frames. The study has a special 4ft by 4ft horizontal pivot-hung window.

The ground floor slab generally is finished with ½in mahogany blocks, there are 6 by 6in quarry tiles in the utility room and under the sink and cooker in the kitchen, the remainder of which is finished with "A" quality linoleum. The first floor, 7 by 2in joists at 18in centres, is finished with 1in T. & G. boarding. Ceilings over the ground floor are ¼in plaster board with a skim-coat finish; over the first floor is ½in insulating board with skim-coat finish and aluminium foil laid over the joists.

The roof is covered with Cedar Shingles on battens

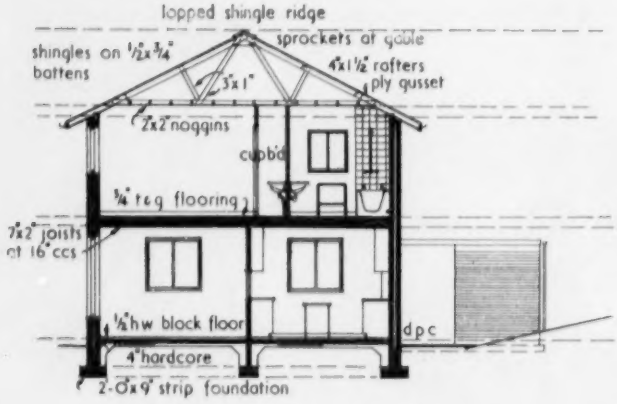
House at Platt

supported by trusses at 2ft centres. The drives are mix-in-place stabilized soil finished with tar-bound gravel. The two-car garage was prefabricated by Dartford Portable Buildings, Ltd., in timber with an aluminium roof.

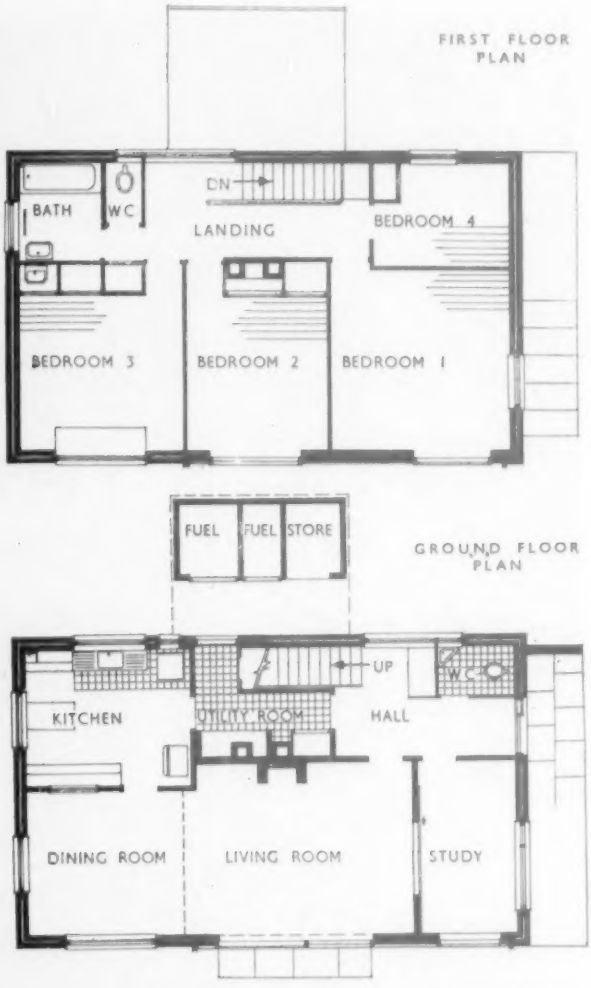
Space heating and hot water is supplied by the Radiation Mark X solid fuel whole-house heating installation. There is a wood-burning open fire in the living room. Soil drainage is to a septic tank, and rainwater drainage is to soakaways.

architects:
Cassidy, Farrington & Dennys

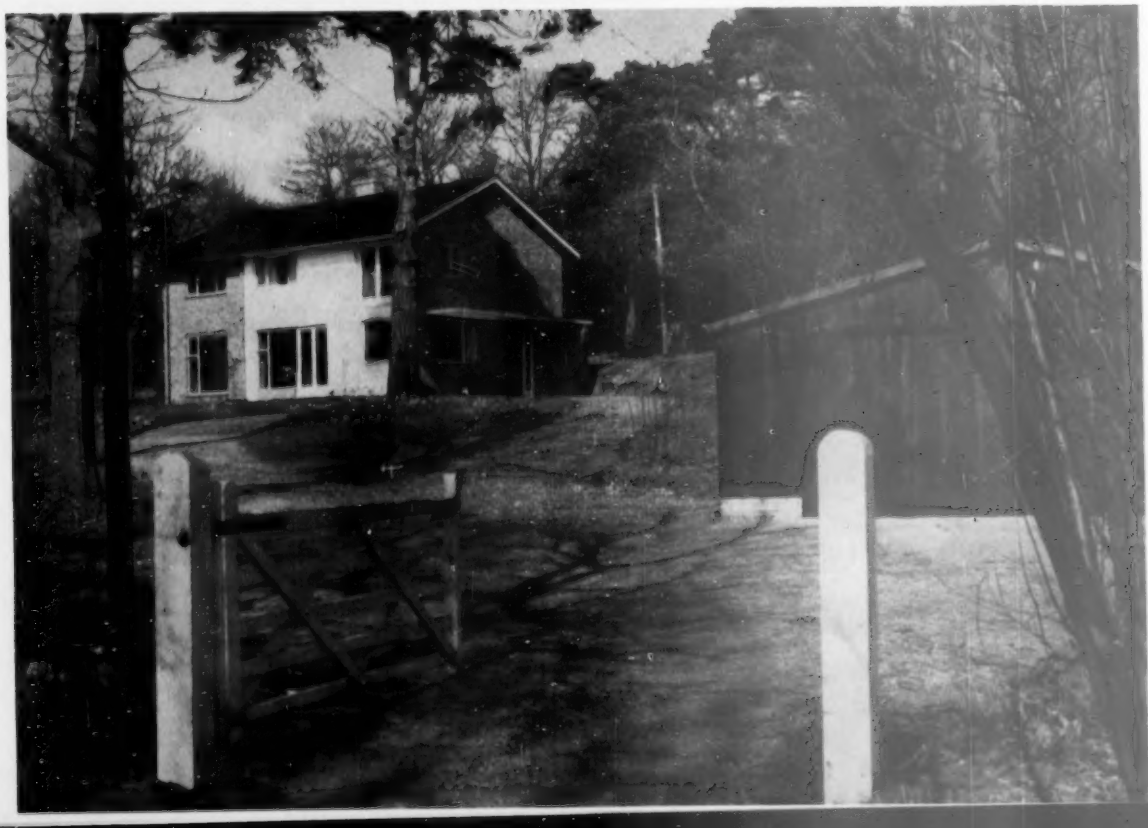
general contractor:
W. & O. Durling

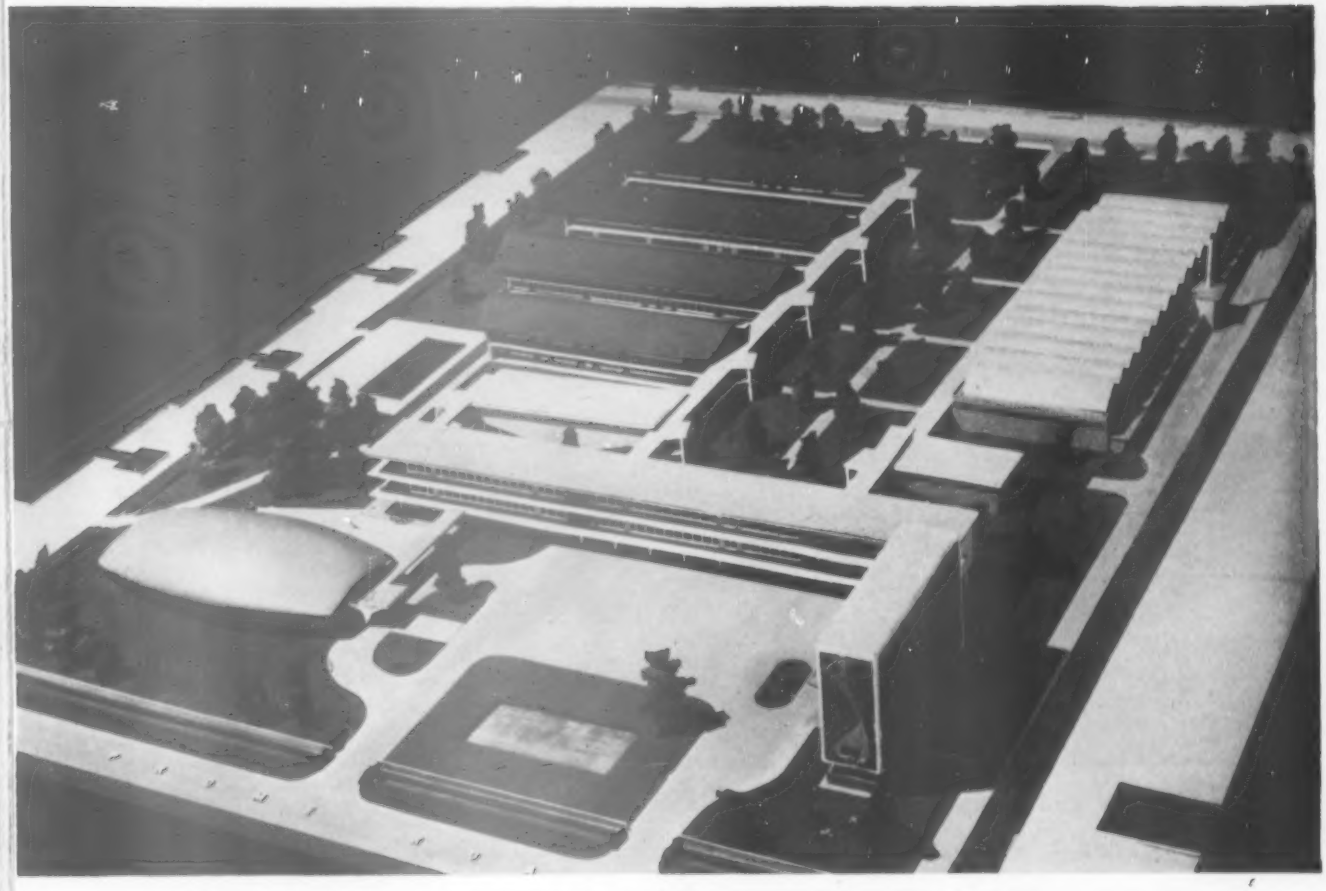


SCALE OF PLANS AND TYPICAL SECTION: 12FT ½ TO 1 IN.



View from the road





Model of the scheme: General view from Prome Road (South)

Proposed Scheme for Engineering College for The University of Rangoon, Burma

ARCHITECTS: RAGLAN SQUIRE & PARTNERS

Purpose of the scheme

Due to the rapidly expanding industrial background of Burma the existing Engineering College, housed in a pre-war building provided by the Burma Oil Company, can neither produce enough graduates nor provide instruction in sufficient subjects to meet the demand. In order to provide these facilities, the Burmese Government have appointed Raglan Squire and Partners to design a new series of buildings for a faculty covering the following subjects: Mechanical Engineering; Civil Engineering; Electrical Engineering; Electrical Communications; Chemical Engineering; Mining; Architecture; Sanitary Engineering.

Two hundred qualified graduates are expected to be produced annually, the full course being four years.

The site

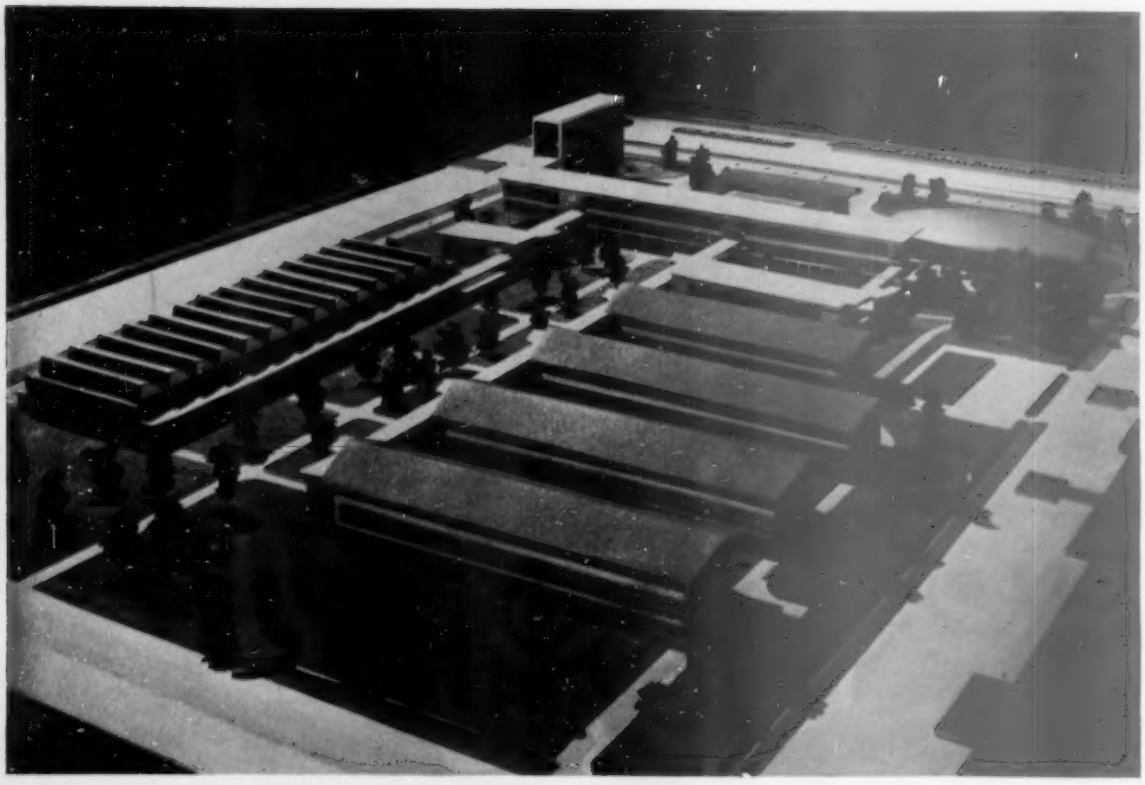
As the site is of some 12½ acres in extent and virtually flat it has been possible to plan for horizontal rather than vertical circulation.

Planning

Accommodation is required for a total of 1,200 students. All students other than architectural will receive instruction in Mechanical Engineering for the first two years, with occasional lectures and demonstrations in other subjects, and will specialize in their third and fourth years.

The bulk of the students will therefore be first and second year students and it has been decided to accommodate them in one large three-storey block facing the main entrance on Prome Road, with three terraced lecture theatres, free-standing but connected by covered ways, behind. Instruction in the specialist subjects will be received in four independent blocks. A north light block is provided to accommodate workshops so that any noise will be as far removed as possible from lecture halls and drawing offices. All these buildings are inter-connected by covered ways.

[*Continued overleaf*



General view from B.O.C. College (North-West)

Site layout ☞

The clients were very anxious to have at the entrance a building which was tall and impressive. Their requirements have been met by planning, to the right of the entrance, the Administration Offices, Dean's quarters, Board Room, Students' Common Room, Staff Common Room, Library, etc., in one block of five floors with tank rooms over, the face of the building being covered with a reticulated pattern of precast concrete units and the interstices painted or filled with mosaic to designs by local artists. The Assembly Hall is to the left of the entrance and will seat 1,000.

Construction

As the scheme is for the principal Engineering College in the country, various forms of construction have been incorporated in order to provide examples for students to study during building operations. The four independent blocks for third and fourth year students will be built mainly in brickwork to enable them to be put up by local contractors, with reinforced slab or pot floor and lightweight roofing on timber trusses, as these blocks are needed quickly to enable the existing Engineering College, at present short of space, to overflow into them.

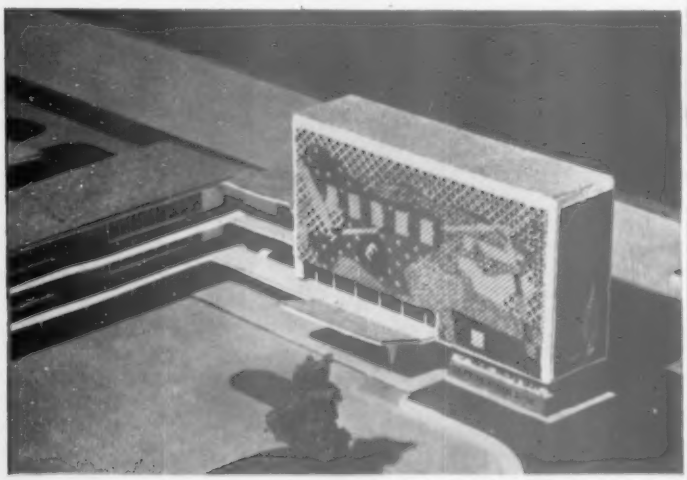
The Mechanical Engineering block will be a reinforced concrete frame structure with a double skin flat roof. It is raised on pilotis, a car park and cycle store being accommodated under. The Administration block, of normal reinforced concrete frame construction, can be entered from the verandahs of this block.

The Assembly Hall has a reinforced concrete barrel vault roof supported on piers with screen walls of local stone, whilst in the Workshop block, reinforced concrete shells are used in conjunction with prestressed beams to give a clear span of 100 feet.

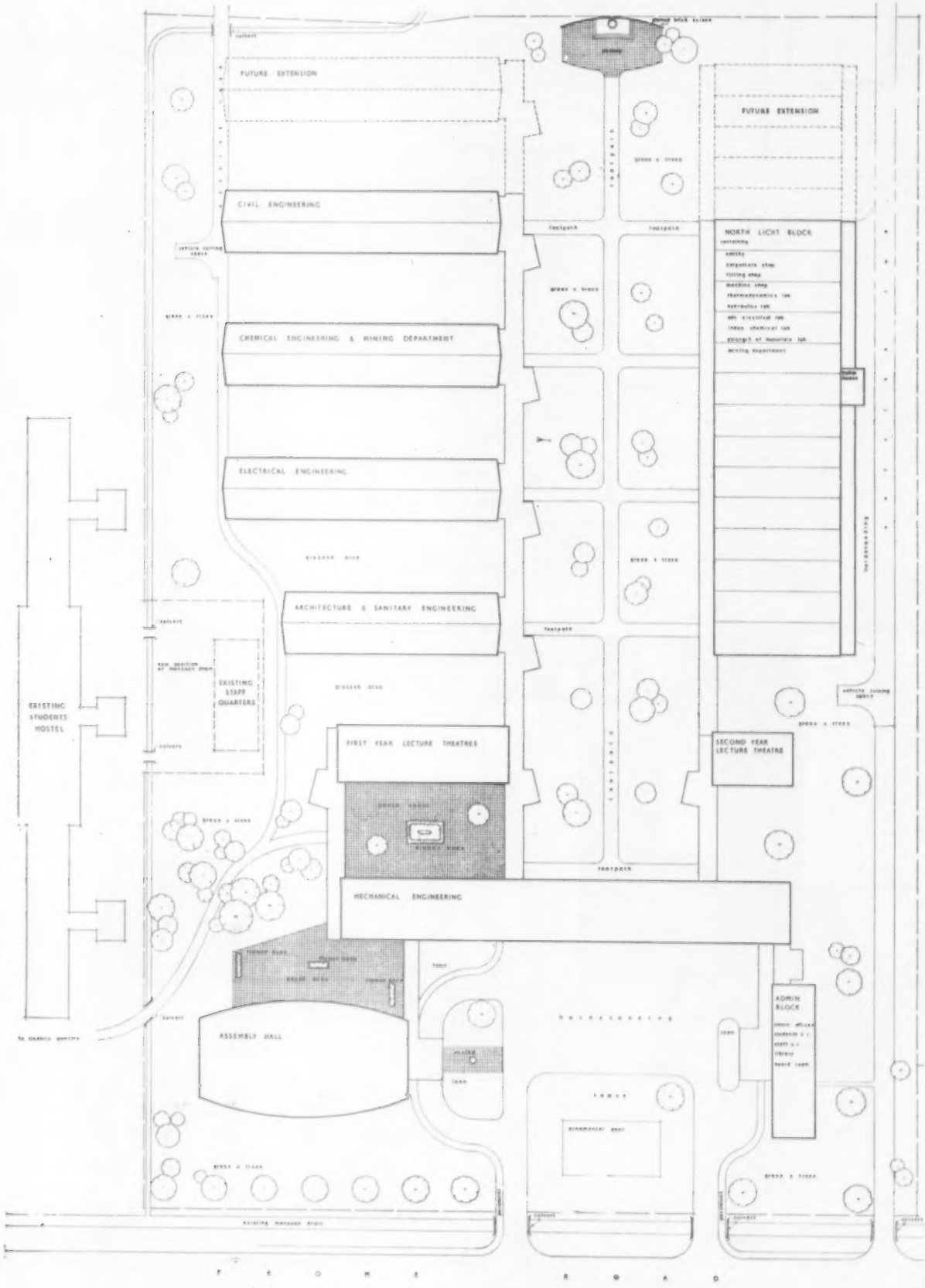
Special Requirements

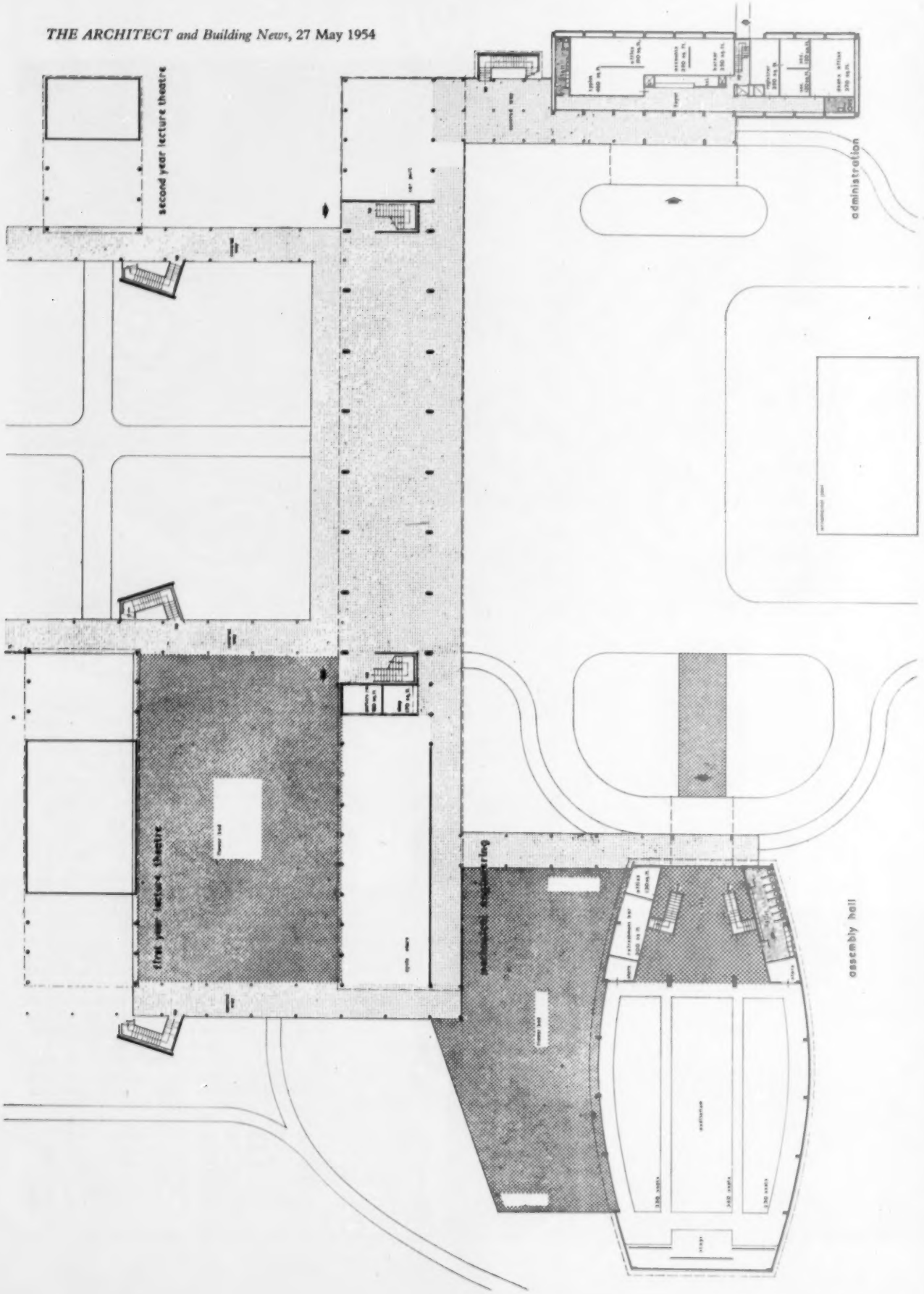
No air-conditioning will be employed except in one or two special cases such as Battery Rooms, etc. Ceiling heights, therefore, are never less than 15 feet, and particular care has been taken to maintain cross ventilation throughout every building. Any cross wall necessitated by internal planning requirements is carried up only 9 feet or so from the floor, the remaining height being filled by a pierced screen or grillage. Verandahs 12 feet deep have been provided where necessary on the west side of the main blocks to give maximum shade.

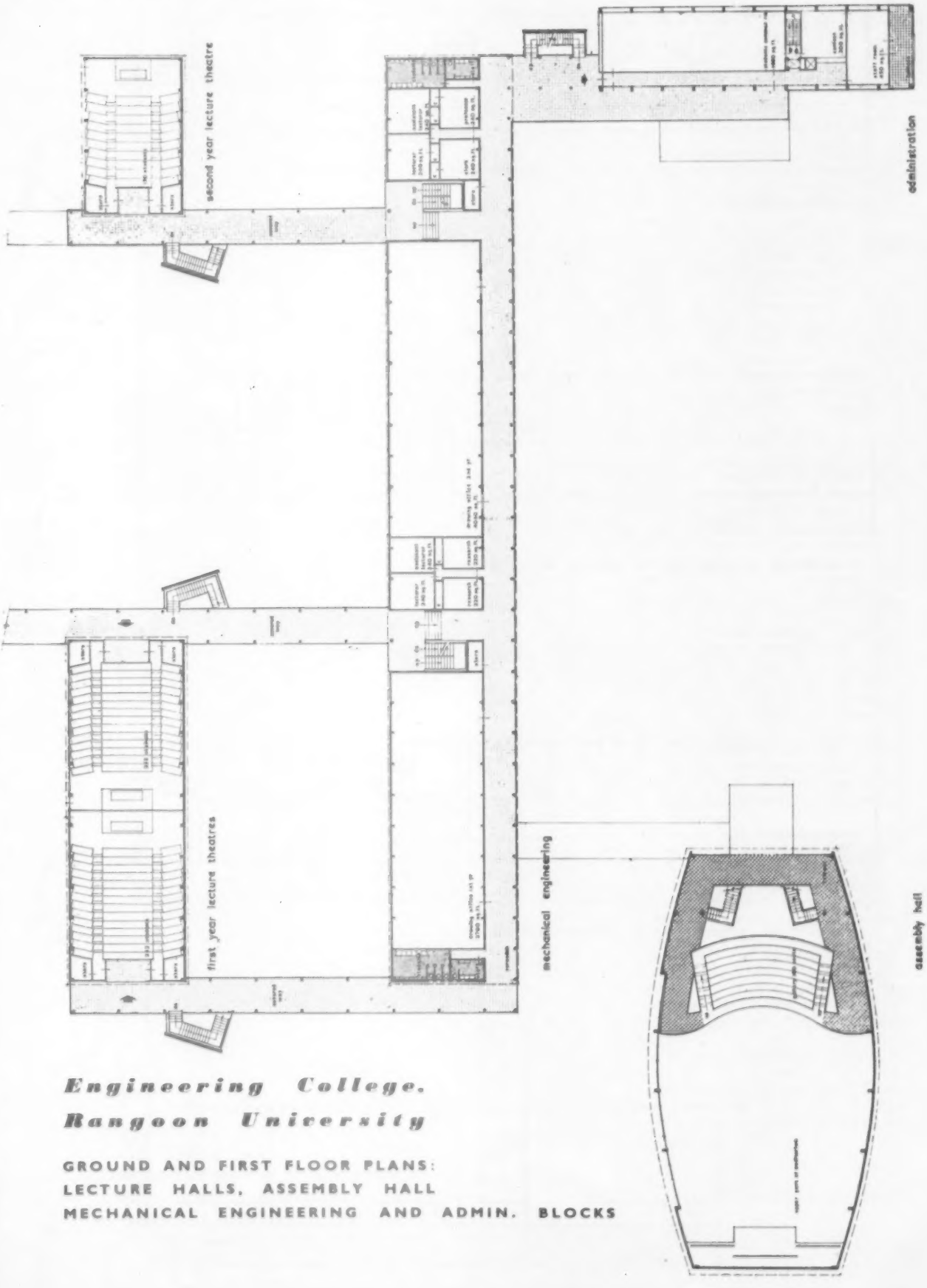
Monsoon drains will have to be provided.



Admin. Block: View from West

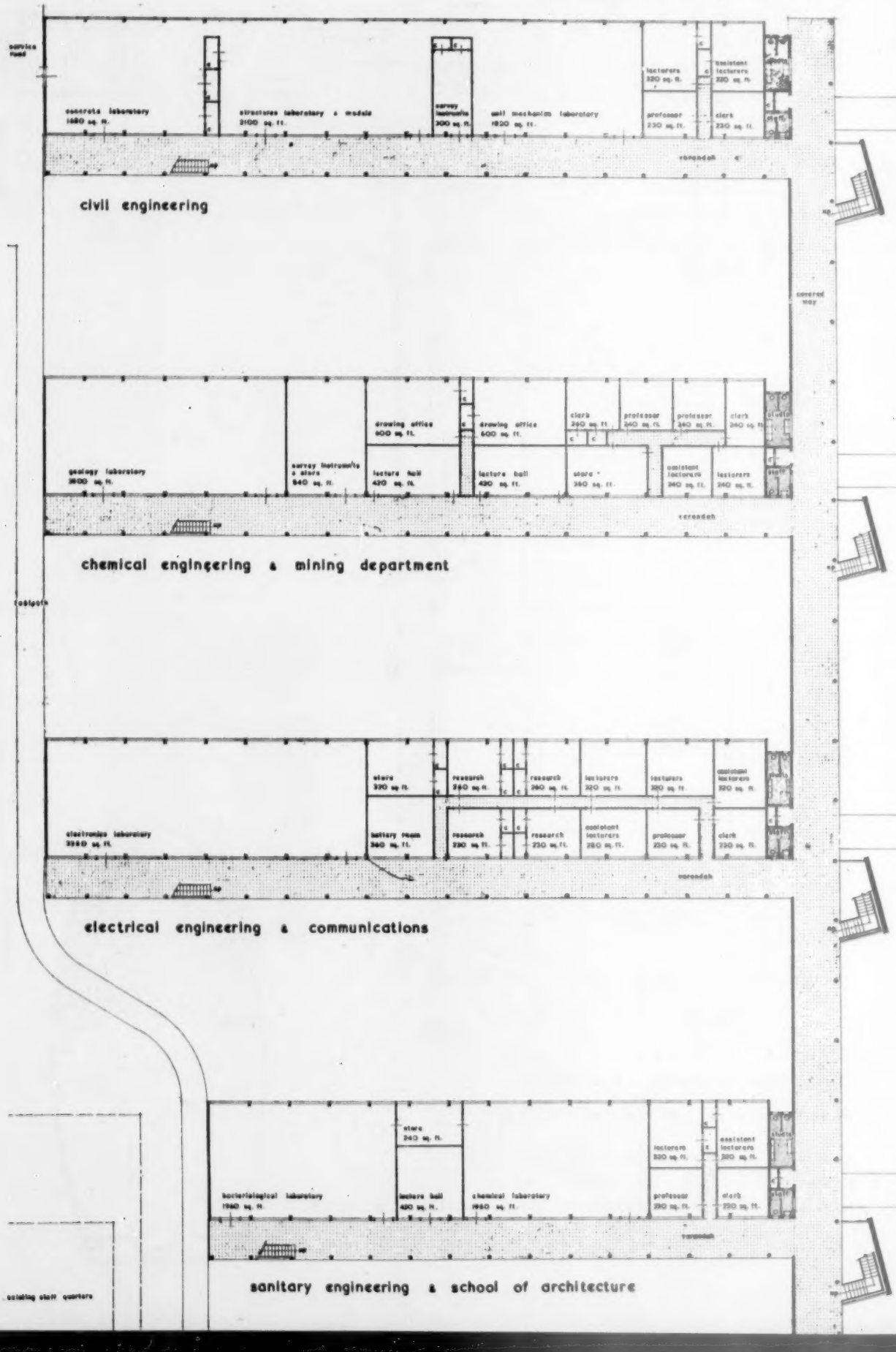

FUTURE EXTENSION
CIVIL ENGINEERING
CHEMICAL ENGINEERING & MINING DEPARTMENT
ELECTRICAL ENGINEERING
ARCHITECTURE & SANITARY ENGINEERING
EXISTING STAFF QUARTERS
EXISTING STUDENTS HOSTEL
FIRST YEAR LECTURE THEATRES
MECHANICAL ENGINEERING
ASSEMBLY HALL
FUTURE EXTENSION
NORTH LIGHT BLOCK
SECOND YEAR LECTURE THEATRE
ADMIN BLOCK
footpath
grass & trees
P R O M E
R O A D

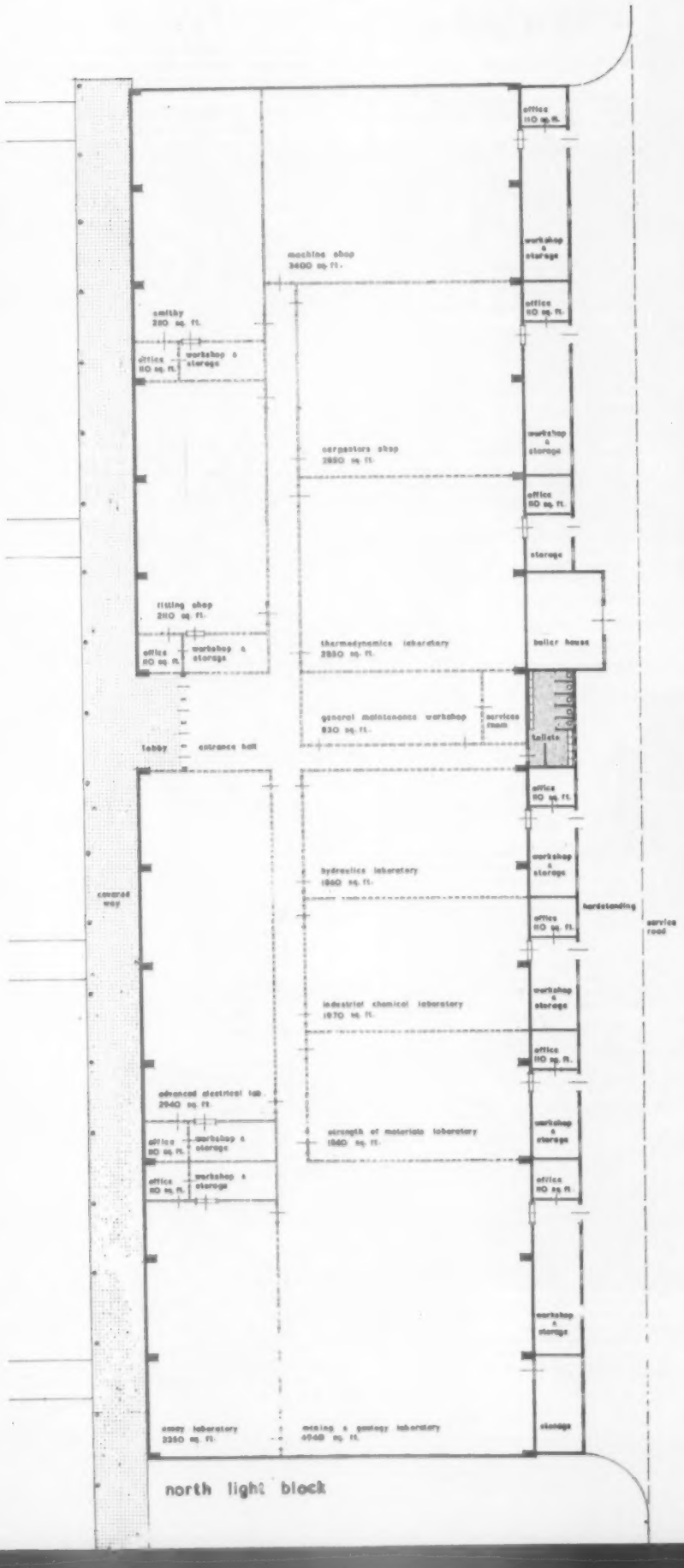

second year lecture theatre
administration
first year lecture theatre
assembly hall



Engineering College, Rangoon University

GROUND AND FIRST FLOOR PLANS: LECTURE HALLS, ASSEMBLY HALL MECHANICAL ENGINEERING AND ADMIN. BLOCKS


civil engineering
chemical engineering & mining department
electrical engineering & communications
sanitary engineering & school of architecture



University of Rangoon New Engineering College

Before their first visit to Rangoon in November, Mr. Raglan Squire and Mr. Pitcher and other members of the firm visited the following colleges of engineering in the United Kingdom: Cambridge University Engineering Department; Battersea Polytechnic; Northampton Engineering College; Imperial College of Science and Technology, Mining Department.

With the information they had collected on these visits and as a result of instructions they received in Rangoon from the Dean of the Faculty of Engineering, the preparation of sketch plans commenced late in December, 1953. At the same time, it was decided that a model of the completed scheme would demonstrate more clearly the Architects' intentions and this model was developed along with the preparation of sketch plans.

After arrival in Rangoon in mid-February, the sketch plans and model were presented to a meeting of the University Estates Committee. At this meeting, approval in principle of the site layout and the general design of the individual buildings was given. The Architects subsequently consulted with the Dean of the Faculty on the detail layout of each building.

On March 13 the Prime Minister, U Nu, laid the foundation stone on the Prome Road site. At this ceremony, the model was on view. Later on, the model was presented to a conference at the Prime Minister's house at which the Minister of Education was speaking.

Work is now progressing on the preparation of detailed working drawings, specifications and Bills of Quantities with a view to obtaining tenders for commencement of work on some of the Laboratory Blocks in September or October of this year.

It is hoped that occupation of some of these blocks will be possible by June, 1956, in order to enable the courses at the Engineering College to be expanded for the 1956/1957 Session.

The more complicated buildings, such as the Assembly Hall, the Administration and Laboratory Block and the Lecture Halls will take two years to complete and will not be available until late 1957.

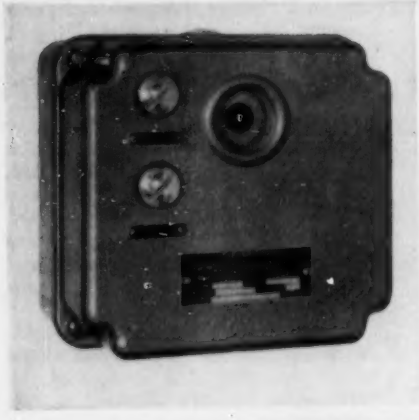
GROUND FLOOR PLAN

MOSAICS

SERVICES
VENTILATION
B2/19

The "Dusgard" unit for control of dust from pedestal grinders. The current price of this unit, for a wheel up to 24in diameter and 3in width, is £18 14s complete with two side plates and 2ft of flexible ducting for connection to exhaust system, made by Air Control Installation Ltd., Ruislip, Middlesex. The unit comprises a mild-steel faceplate with three slots, all connected to an exhaust manifold at the back of the plate, from which two side screens extend back to the sides of the standard wheel guard. A circular spigot is provided for connection to the exhaust system, and the Dusgard should be easily fitted without any major alteration to the grinder.

In addition to the faceplate incorporating the high-velocity exhaust, suction is also required on the bottom box or hood and to remove the heavy particles thrown directly into the hopper.



SERVICES
ELECTRIC ACCESSORIES
B5/41

In many industrial applications photo-electric relays are preferred to other forms of control device by reason of their simplicity and speed of operation. The Form T Relay has been designed for operation by change of daylight intensity to control public lighting installations, works or drawing office lighting, illuminated signs, etc. Made by the British Thomson-Houston Co. Ltd., Rugby.

PLANT
COMPRESSOR
E15/3

The first portable compressor powered by a Ford Diesel Industrial engine has been introduced to the British market by the Atlas Diesel Co. Ltd. The compressor is a two-stage, two-cylinder, single-acting, air-cooled, type NT9 arrangement for forced feed lubrication and equipped with regulating valve with unloading device for one-step unloading adjusted to operate between 100-85lbs per square inch (7-6 atmos). It has an engine speed reducer for light and no-load running, air intake filter intercooler with safety valve, flywheel and fan for intercooler. The compressor is driven through an automatic centrifugal clutch by a 4-cylinder water-cooled overhead-valve diesel engine.

SERVICES
SPACE HEATING
B3/48

An oil-filled electrically operated thermostatically controlled radiator in portable form, Model 1, by Steel Radiators Ltd. Steelrad Works, Bridge Road, Southall.

The radiator body, manufactured from high-quality mild steel, is designed to give efficient distribution of heat. An electric element provides the heat which is distributed inside the radiator by means of oil which requires no attention or renewal, and which is specially clarified to give satisfactory service over periods of long use.

The maximum temperature of the radiator may be varied according to requirements by adjusting the thermostat.

Two pilot lights glow whilst the radiator is using electricity, and one remains aglow when the thermostat cuts off. ½, 1½ and 2 kW models are available.

INDUSTRIAL NOTES

● A number of prize essay competitions are announced by the Royal Sanitary Institute for which attractive cash prizes will be awarded.

The John Edward Worth Prize (the funds are provided by a legacy left by the late John Edward Worth, a Fellow of the Institute), is to be awarded for the best essay on "The Advantages and Disadvantages in the use of Alternative Materials as Substitutes for Traditional Materials in Building Construction, Sanitary Appliances and Fittings."

The award, which will take the form of a cash prize of £70, is to be used for the study of domestic sanitary science in Europe.

The John S. Owens Prize (the funds are provided by a legacy left by the late John S. Owens, a Fellow of the Institute), is to be awarded for an essay on "Modern Proctices in the Conservation of Heat, with special reference to Smokeless Fuel Appliances." The prize will consist of 20 guineas.

A prize of £21 is also to be awarded for the best essay on "Suggestions for the Training of Health Visitors to Meet the Present Day Conception of the Health Visitors' Work." Health visitors are invited to discuss the advantages and disadvantages to a health department of an all-purpose nurse.

The competitions are open to all, excepting that relating to the John Edward Worth Prize, in which particular case entries are restricted to persons resident in the British Isles.

Full particulars regarding these prize essay competitions, the closing date for which is December 31, 1954, can be had from The Secretary, The Royal Sanitary Institute, 90, Buckingham Palace Road, London, S.W.1.

● Mr. C. Geoffrey Cullen, chairman of Bowaters Building Boards, Ltd., has retired from the chairmanship of the Building Board Manufacturers' Association after just over nine years of loyal service.

His place will be taken by Mr. Cedric Ford, director and secretary of the P.I.M. Board Co., Ltd. The new vice-chairman is Mr. Frank Morley, director of Bowaters Building Boards, Ltd.

Mr. Cullen is a member of the Governing Council of FIDOR.

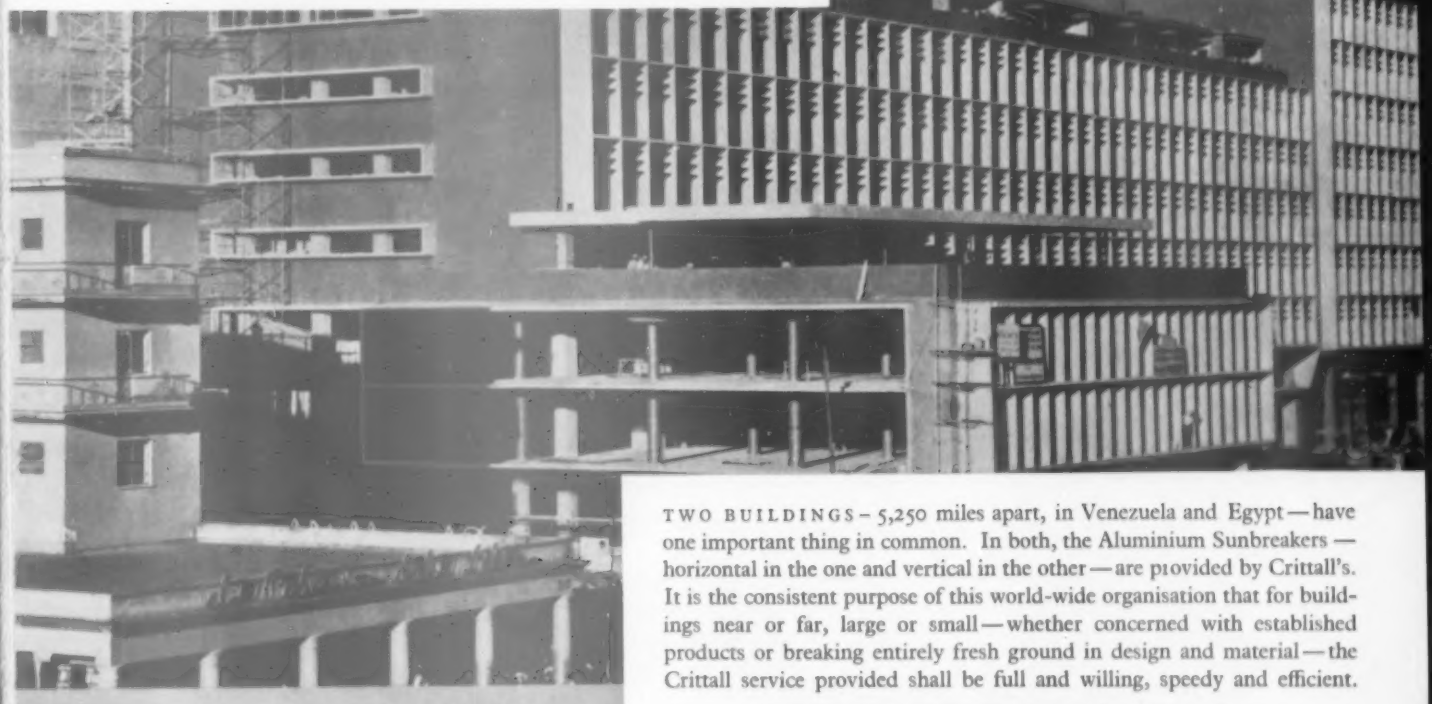
● The appointment to the board of Mr. John Creek as sales director is announced by Mr. A. Hudson Davies, managing director of Fibreglass, Ltd.

● The directors of The British Aluminium Co., Ltd., announce that Mr. George Boex will be retiring from his joint managing directorship on July 4 next when he will reach the retiring age, and will be succeeded by Mr. W. J. Thomas. Mr. Boex will remain a director of the company and has agreed to carry out any special work as a consultant which the board may ask him to undertake from time to time.

● Concrete, Ltd., announce that they have changed their Hounslow telephone number to Hounslow 2323 and under this number are grouped their many lines, so that callers will be automatically put through to a free line. They very much hope that this rearrangement of the telephone numbers will enable their customers to get contact with Hounslow more easily than has been the case in recent months.

ALUMINIUM HORIZONTAL SUNBREAKERS

This illustration shows THE C. A. OBRAS BUILDING, Avenida Bolivar, Caracas
(*Architect: Dr. Cipriano Dominguez*)
which is fitted with CRITTALL HORIZONTAL ALUMINIUM SUNBREAKERS.

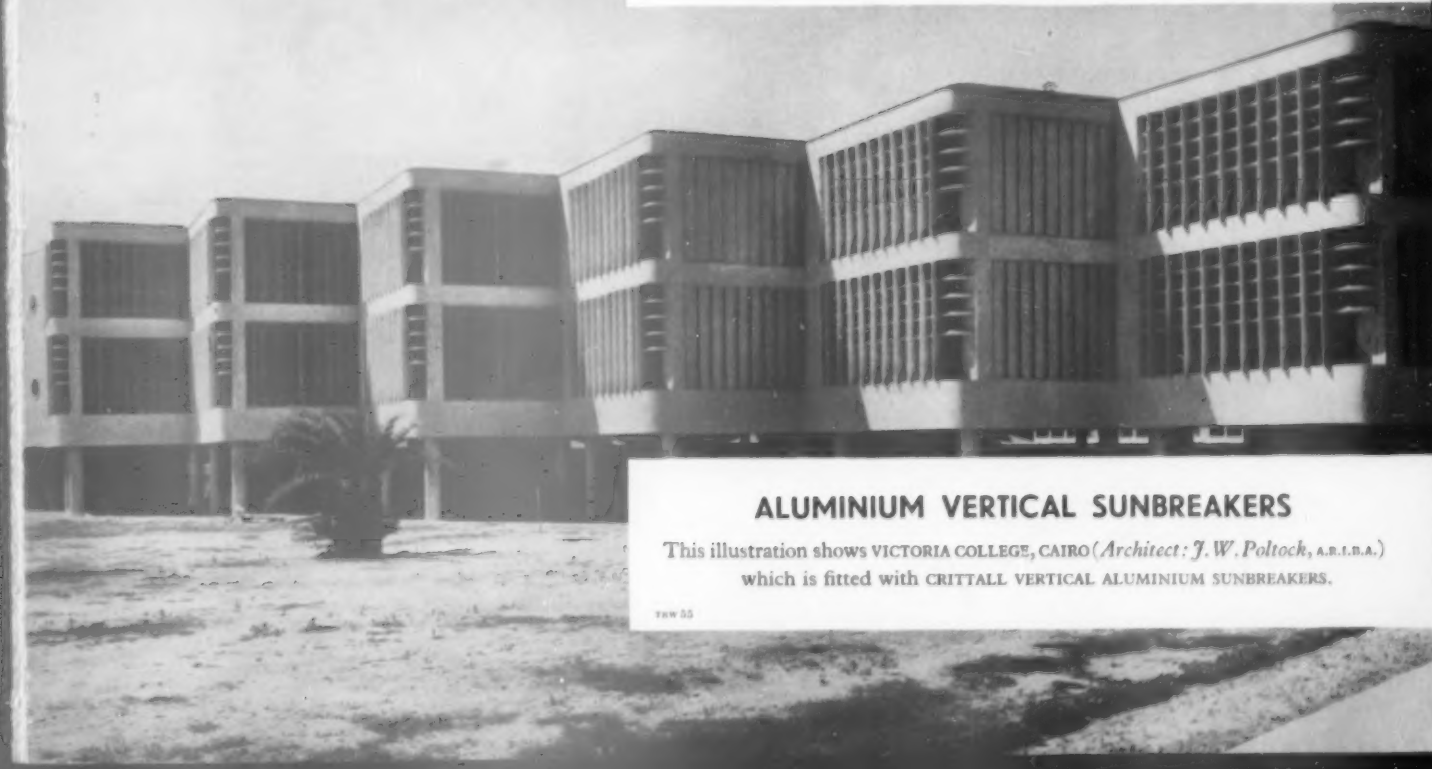


TWO BUILDINGS – 5,250 miles apart, in Venezuela and Egypt — have one important thing in common. In both, the Aluminium Sunbreakers — horizontal in the one and vertical in the other — are provided by Crittall's. It is the consistent purpose of this world-wide organisation that for buildings near or far, large or small — whether concerned with established products or breaking entirely fresh ground in design and material — the Crittall service provided shall be full and willing, speedy and efficient.

CRITTALL

THE CRITTALL MANUFACTURING CO. LTD · BRAINTREE · ESSEX

Factories and Depots throughout the country.



ALUMINIUM VERTICAL SUNBREAKERS

This illustration shows VICTORIA COLLEGE, CAIRO (*Architect: J. W. Poltock*, A.R.I.B.A.)
which is fitted with CRITTALL VERTICAL ALUMINIUM SUNBREAKERS.

TAW 55

Craftsman made, craftsman laid, Semastic Decorative and Vinyl Tiles are noted for their exquisite colourings. In this tile, blossom and leaf and seed-pod colours mingle and mix to give Elmwood Marble a delightful shade that contains all the moods and tones of the noble Elm tree.

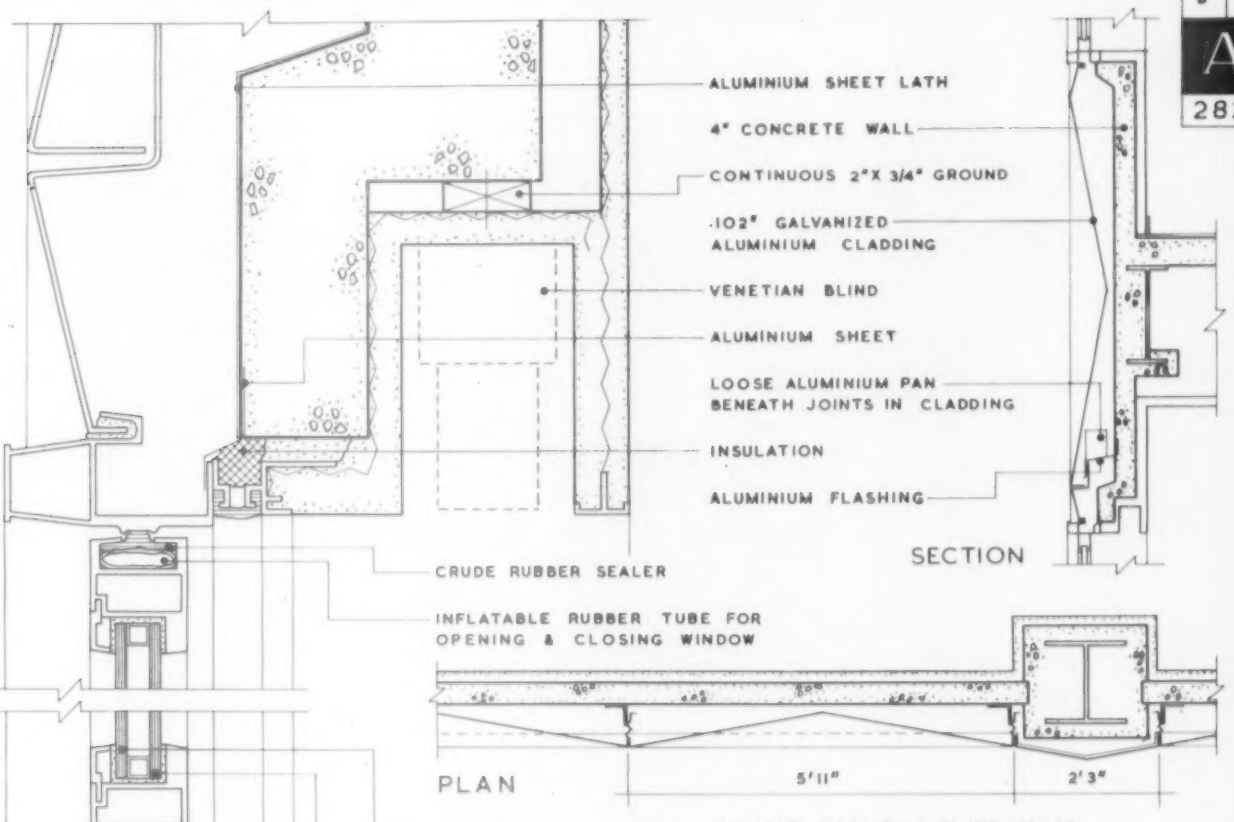
One of the twenty-nine plain and marbled shades in the Semastic Decorative range, which may also be cut and shaped into any special design or motif.

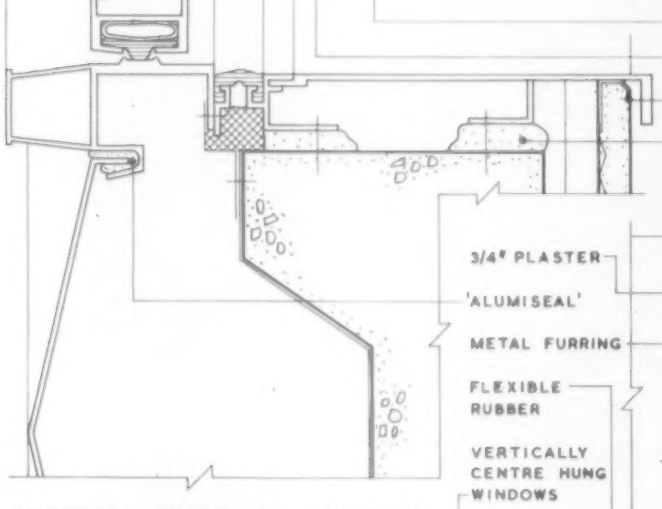
SEMASTIC *Decorative and Vinyl Floor Tiles*

products of a Dunlop Company are installed by

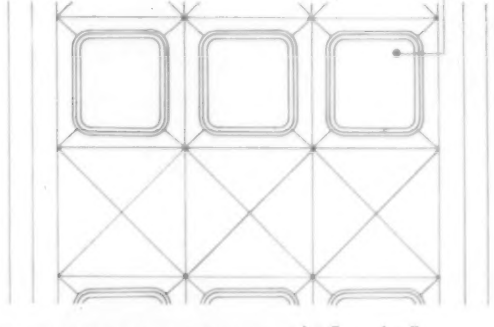
J. A. HEWETSON & CO. LTD
HOLLIS BROS. LTD
HORSLEY SMITH & CO. (HAYES) LTD
PILKINGTON'S ASPHALTE CO. LTD
SEMTEX LTD
THE PENMAENMAWR & TRINIDAD LAKE ASPHALT CO. LTD
THE LIMMER & TRINIDAD LAKE ASPHALT CO. LTD
THE WESTERN TRINIDAD LAKE ASPHALT CO. LTD

458/53

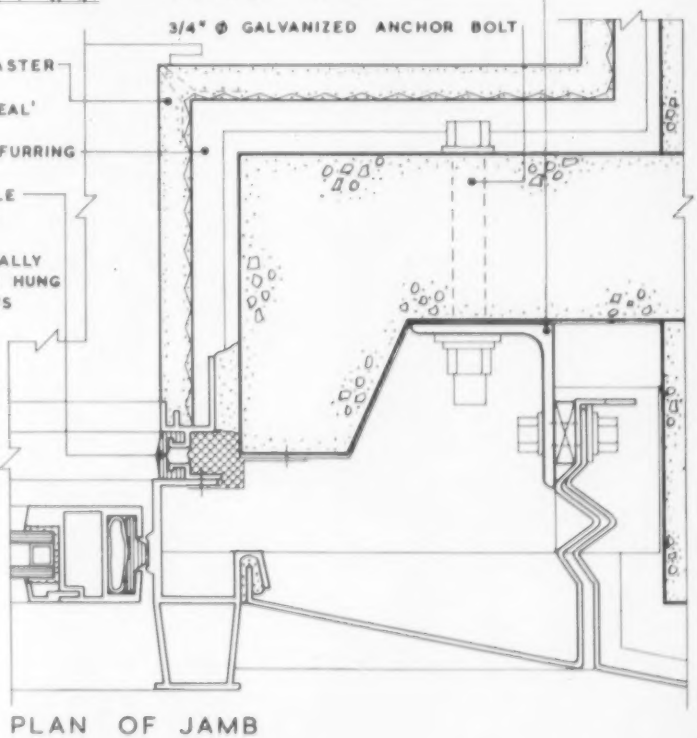




SECTION THROUGH WINDOW



ELEVATION SCALE 1/8" = 1'0"



PLAN OF JAMB

SCALES 3/8" = 1'0" & 3" = 1'0"

WALL DETAILS, OFFICE BUILDING, PITTSBURG, U.S.A.

ARCHITECTS: HARRISON & ABRAMOVITZ

DOMESTIC ELECTRIC WATER HEATING

ELECTRIC IMMERSION HEATERS IN SOLID FUEL INSTALLATIONS (2) INDIRECT SYSTEMS

In an indirect system the water in the hot water storage vessel from which the taps are supplied is heated indirectly by means of a coil or cylinder inside the vessel connected to the boiler by flow and return pipes in the normal way. The principal advantage lies in the reduction of scale formation in hard water districts. Once the scale from the initial filling-up of the primary circuit (indirect heater—flow and return pipes—boiler) has been deposited, no more will be formed as the water is used over and over again. In the hot water storage vessel itself, scale deposit is slight owing to the small difference in temperature between the indirect heater and the water surrounding it, and generally takes the form of a loose sludge that can easily be cleaned out.

The principles governing the positions of the immersion heater, cold feed, draw-off and vent pipes in relation to each other and to the hot water storage vessel already described in WH3 are still applicable when an indirect cylinder or 'calorifier' is used. The immersion heater must not of course foul the inner cylinder or coil which should leave 4½" between its base and the bottom of the cylinder. If there is no standard tapping here for an immersion heater, the makers should be consulted about the clearance available.

Reverse Circulation

If the primary circuit is arranged as in Fig. 1a, circulation of electrically heated water will probably take place through the boiler when the latter is not in use, due to the cooling and consequent descent of water in the length of pipe XY. Fig. 1b shows how this risk can be avoided by keeping the upper part of the flow pipe at approximately the same temperature as the hot storage vessel (See also WH3).

Layout of Pipework

Although this appears to be more complicated than in a direct system the same principles apply. An incorrect example is given in Fig. 2a, corrected in Fig. 2b. The most serious error in Fig. 2a is the branch BA from the flow-pipe on the radiator circuit, which runs horizontally to the indirect heater in the hot water storage vessel. Electrically heated water will circulate through radiators and boiler and the whole circuit A B C D E F G H J will dissipate heat resulting in continuous consumption of electricity. The small loop K L M serving towel rail and bath, basin and sink taps forms another circuit for the waste of electricity.

These faults are avoided in the correct design by separating the radiator loop from the primary circuit (boiler—flow and return pipes—indirect heater) and connecting the towel rail thereto. The way is then clear to serve all taps by direct draw-off pipes. Single pipe circulation in the vent pipe is prevented by moving it 18 inches along the draw-off pipe from where it leaves the top of the hot water storage vessel, which should of course, be efficiently insulated as described later and in WH.3.

Position of Hot Water Storage Vessel

It is usually the practice to install the boiler and hot water storage vessel as near each other as possible in both direct and indirect systems to obtain good circulation

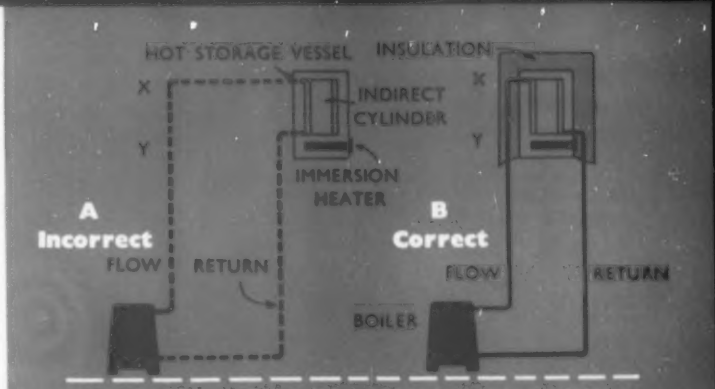


Fig. 1 Connections between boiler and hot storage vessel. Indirect system

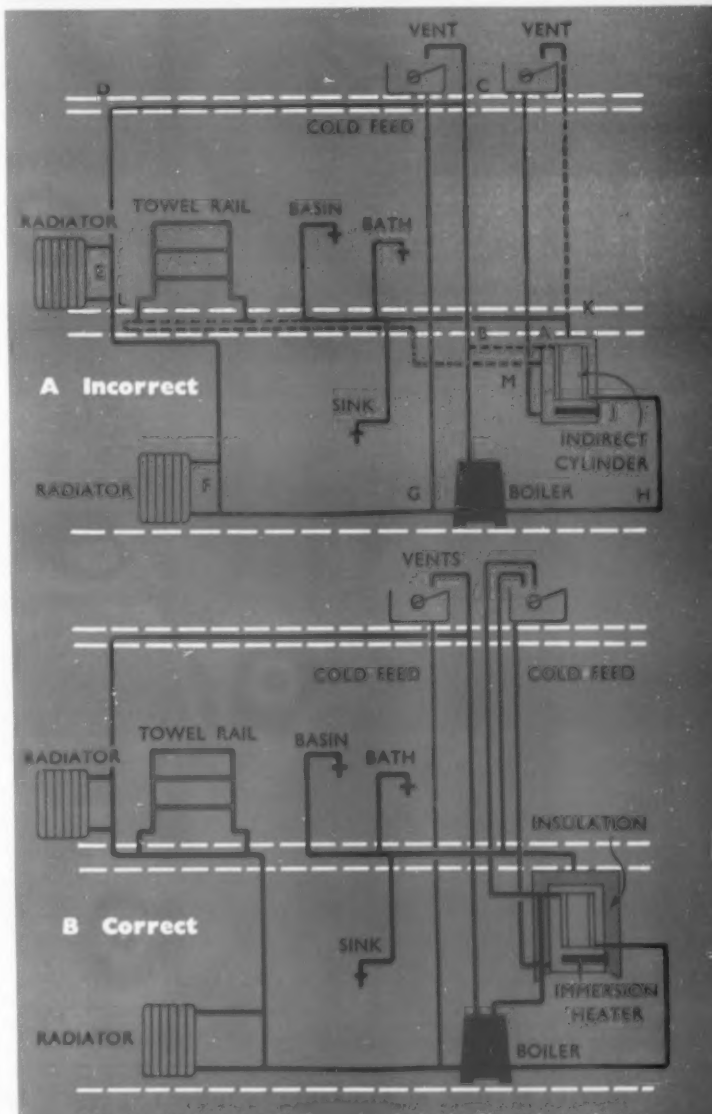


Fig. 2 Layout of pipework in indirect system

WH.4

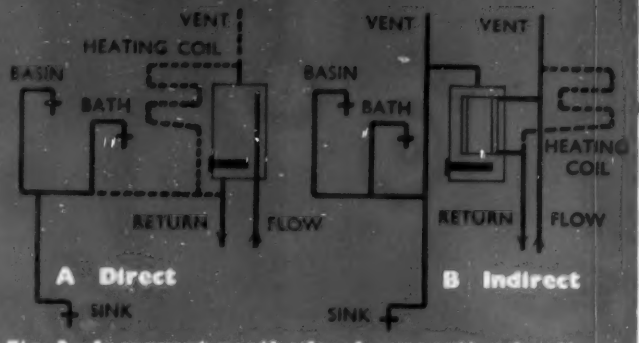


Fig. 3 Incorrect methods of connecting heating coils causing circulation of electrically heated water

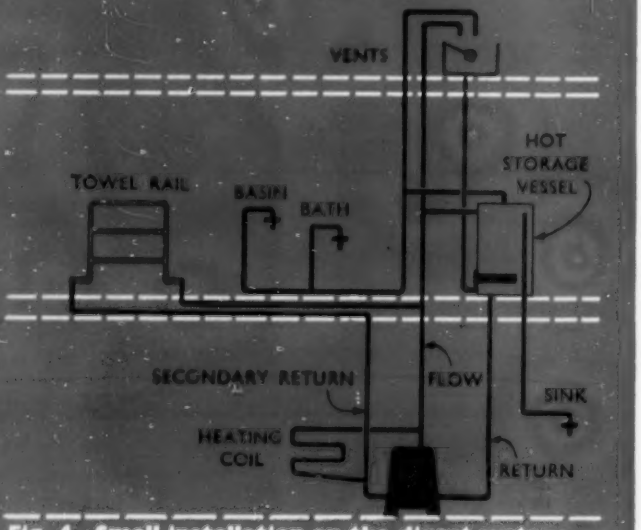


Fig. 4 Small installation on the direct system with heating coil in drying cupboard

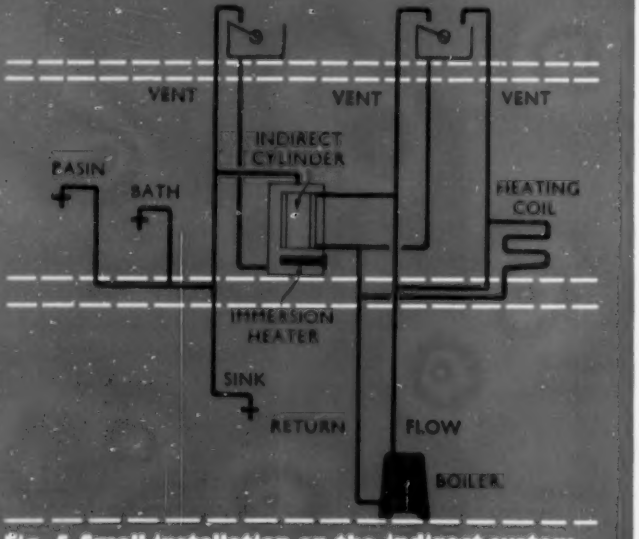


Fig. 5 Small installation on the indirect system with heating coil in linen cupboard

and to reduce the heat loss from the flow and return pipes. When water is heated electrically in the summer, the distance between boiler and hot water storage vessel is not so important, provided the circulation is satisfactory. Sluggish circulation in this circuit, which can cause a lot of trouble, is more often due to undersized pipes and numerous sharp bends than longer pipe runs, and the contribution of the latter to space heating in the winter is to be welcomed so long as adequate circulation is maintained when the boiler is in use.

As already pointed out, the hot water storage vessel should be as near the sink as possible under the circumstances in order to reduce the heat loss from the draw-off pipe when the water is electrically heated: in the resulting compromise it is generally placed on the first floor or just below the ground floor ceiling. In the latter case at least three inches clearance must be allowed for insulating material over the top as well as round the sides.

Linen Cupboard Heating

When a hot water storage vessel with an immersion heater as described above and in WH3 is installed in a linen cupboard, it is not advisable to endeavour to heat the cupboard by reducing or omitting part of the insulation. Sufficient warmth can be obtained during the winter from the flow and return piping or a pipe coil connected thereto as shown in Fig. 4, and from a small tubular heater in the summer months, placed below the slatted shelves so that articles cannot come in direct contact with it. Fig. 3 shows incorrect methods of connecting the pipe coil.

When installing the hot water storage vessel in a cupboard, sufficient space must be allowed all round and over the top to allow 3 inches of insulating material to be provided: if loose material is used for this purpose, means should be provided for "topping up" as a certain amount of settlement always takes place. Access is required to the head of the immersion heater, and also the hand-hole if one is provided, as well as space for the withdrawal of heater and thermostat.

If facilities are required for "airing off" damp clothes, these are better provided elsewhere, e.g., in the form of a drying cupboard in or near the kitchen, which can also accommodate the weekly wash, the heat being obtained from a heat-leak or an electric heater according to circumstances. Fig. 4 shows how this can be done. The layouts shown in Figs. 4 and 5 are suitable for either direct or indirect systems. The insulation to the hot water storage vessel is omitted in these diagrams for the sake of clearness.

Bi-metallic Corrosion

The combination of copper and galvanised iron in any hot water system will lead to corrosion due to bi-metallic action between the zinc and copper irrespective of how the water is heated: in consequence both piping *and* hot water storage vessel should be either copper or galvanised iron. Immersion heaters are coated with a metal which is suitable for use in either case. Whatever other metals may be employed, ungalvanised (black) mild steel pipes, elbows, etc., should never be used in any part of a hot water system, which in this respect includes the cold feed pipe to the hot water storage vessel, and the vent pipe.

For further details apply to

WH.4 British Electrical Development Association

2 Savoy Hill, London, W.C.2. Temple Bar 9434

CURRENT MARKET PRICES (LONDON)

(These prices apply to material purchased in the quantities named or otherwise as might be expected for a new building of moderate size.) **1 May 1954**

AGGREGATES AND SAND

1½ inch—all in—ballast	21/–	Yard cube
¾ inch do. do.	22/–	delivered
¾ inch screened shingle	20/9	(in five yard
¾ inch do. do.	21/–	loads or
¼ inch granite chippings	60/–	more)
Sharp washed sand	21/–	
Pit sand	20/3	
Building sand	20/3	
Broken brick	17/6	
1½ inch shingle	20/–	
Cartage of muck	8/–	

BUILDING MATERIALS AS DESCRIBED, CENTRAL LONDON

CEMENTS packed in paper bags	Per ton
Portland in 6 ton lots	96/6
Do., from 1 ton to 5 ton 19 cwt do.	105/6
Do., Rapid hardening (6 ton lots)	104/6
Do. (but 1 ton to 5 ton 19 cwts)	113/6
Cement "Aquacrete" (do.)	138/–
Do., "417" or "Polar" (do.)	138/–
Do., "White" (1 ton lots)	257/–

LIME—			
Hydrated and Ground	including paper bags	126/–	(1 ton loads) deliv'd.
		123/6	(2/3 do.) do.
		113/6	(4/5 do.) do.
		111/6	(6 do.) do.

PLASTER—	
Keenes, coarse, pink (2 ton lots)	188/6 ton
Do. do. white (do.)	194/– do.
Sirapite, do. (2 ton to 3 ton 19 cwt lots)	139/6 do.
Do. finish (do.)	147/6 do.
Hardwall, do. (do.)	148/9 do.
Plaster, coarse, pink (do.)	137/3 do.
Do. do. white (do.)	145/9 do.
½in. Plaster baseboard (25 to 149 yds)	2/9 Yard Sup.
Do. (150 to 299 yds)	2/5 do.
3½in Jute scrim (100 yd roll)	8/7 each
Cow hair (under 3 cwt)	97/6 cwt

FIRECLAY—	
Stourbridge, loose (1 ton lots)	161/3 ton delivered
Fire cement	12/3 14 lb.

BRICKS

BACKING BRICKS (In truck loads)—		
Flettons	113/–	per 1,000 delivered
Do. Keyed	115/–	do.
Do. bullnose	133/–	do.
Blue wirecuts	454/–	do.
White	192/–	do.
Southwater engineering (No. 1)	343/6	do.
Firebricks—2½ inch	69/3	per 100 delivered
Do. —3 inch	81/9	do.

STOCK BRICKS—		
Mild stocks	173/6	per 1,000 at Works
Second, do.	204/6	do.
First do.	220/6	do.

Add for delivery—approx. 50/– per 1,000 in lorry loads.

FACINGS (ex truck or lorry)—		
Rustics	138/–	per 1,000 delivered
White	200/–	do.
Blue pressed, 2½in	501/–	do.
Do. bullnose	519/–	do.
Reds (Multi sand faced)	279/–	do.
White glazed stretchers	1280/–	do.
Do. headers	1260/–	do.
Do. bullnose	1600/–	do.
Do. double stretchers	1700/–	do.
Do. double headers	1500/–	do.
Breeze fixing bricks	28/6	per 100
Fire tiles and lumps	32/–	foot cube
Wall ties—8" × ⅞" × $\frac{1}{16}$", black	60/–	per cwt.
Cement mortar (1 : 3) hand-made	82/–	yard cube

BRICKLAYERS' SUNDRIES—					
AIR BRICKS		9×3in	9×6in	9×9in	12×9in
Iron	each	1/10	3/–	4/5	6/–
Galvanized do.	do.	3/2	5/4	8/–	10/7
Terra Cotta	do.	1/3	2/6	6/–	10/2
Chimney pots, Terra Cotta (11 to 25)	do.	1ft 6/8	2ft 11/8	3ft 26/6	4ft 45/8

PARTITIONS—			
18in × 9in Blocks keyed for plastering.			
Per yard super in 6 ton lots	2in	2½in	3in
In solid clinker including any half blocks	3 7	4 2	5/–
In cellular clinker blocks	4 3	4 11	5 9
In hollow clay blocks	4/3	4/6	5/–
Clinker blocks in small quantity	5 2	6/1	7/4

Intermediate quantities in all types may be had at intermediate prices.
Smooth in lieu of keyed faces extra cost per side 3d. per yd. super.

SINKS			
Fireclay white glazed in and out—standard quality.	24 × 18in	30 × 18in	30 × 20in
London pattern, no overflow, 6in deep	62/–	77/–	81/–
Belfast, plain edge, 10in deep	71/–	122/–	163/–

FLUE LININGS PLAIN, CIRCULAR	Foot lineal Straight	Each Bends
9in diameter	3/8	11/–
10in do.	4/7	13/9
12in do.	8/8	26/–
9in diameter, beaded end, 12in high		4/10

FLUE PIPES AND FITTINGS	4in	5in	6in
Heavy asbestos type, 6ft. length	15/3	21/–	26/6
Do. 3ft length	7/8	10/6	13/3
Do. bends	5/9	7/3	8/8
Light asbestos type, 6ft length	12/6	15/9	21/–
Do. 3ft length	6/3	7/11	10/6
Bends	4/7	5/9	6/11
Baffler	12/5	14/9	15/8

DRAINAGE GOODS

GLAZED STONEWARE STANDARD LIST

ORDINARY TYPE—EACH	4in	6in	9in
Pipes in 2 feet lengths	1/8	2/6	4/6
Bends	2/6	3/9	10/1½
Junctions (4in on 4in, 6in on 6in, 9in on 9in)	4/2	6/3	13/6
Gullies with 4in outlets	6/3	6/10½	11/3
4in horizontal inlets	2/–	3/–	5/–
4in vertical ditto	3/–	4/–	7/–
Black iron grids	9*d*	1/5	2/9

Adjustment to Current Cost

	2 ton lots or more	Less than 2 ton lots: 100 pieces or more	Less than 2 ton lots: Under 100 pieces
"Best" pipes and fittings. Percentages to add	67½	97½	107½

Further percentages to be independently added in respect of: British Standard pipes, etc. 10. "Best" Tested pipes, 37½. British Standard Tested, 47½.

IRON DRAINAGE GOODS— Under 2 ton lots. Each	4in	6in
Cast iron pipes, 9 feet long	60/3	89/6
Do. 6 feet do.	44/1	69/5
Do. 4 feet do.	34/9	55/–
Do. 2 feet do.	21/4½	33/4
Short bend	13/10	28/10
Junction	24/5	49/11

CURRENT MARKET PRICES *(Continued)*

DRAINAGE GOODS—*Continued*

GULLEY PARTS—	4in	6in
Traps, high level, invert	23/6	57/- each
Inlet, bellmouth pattern	16/-	24/6 do.
Do. with one vertical branch	23/6	38/- do.
Do. with two do.	53/-	95/- do.
Sealed cover, with felt washer	8/6	18/- do.

RAINWATER SHOES	4in	6in
With vertical inlet and rebated top	27/-	72/- each
Extension piece, 6in high	17/-	17/6 do.
Flat loose coated grating	3/6	4/- do.
Loose solid coated cover	5/9	6/- do.

MANHOLE CHANNELS, WHITE GLAZED— Each	4in	6in	9in
Straight, 2 feet long	15/-	21/3	36/3
Taper, ditto	25/-	25/-	37/6
Bends, main, half section	28/9	41/3	67/6
Ditto, branch, ditto	17/6	25/-	—
Ditto, ditto, three quarters, ditto	25/-	38/9	—
Junctions, single	23/9	41/3	—
Ditto, double	32/6	56/3	—

BROWN GLAZED CHANNELS—
Based on standard list (less than 100 pieces)

	4in	6in	9in
Half-round main channel (2ft long)	2/8	3/11	7/-
Extra for stop ends	2/8	3/11	7/-
Extra for outlets	5/3	7/10	—
Channel bends with splayed ends	7/10	11/8	—
Three-quarter section do.	10/5	15/7	—

MANHOLE COVERS—	Black
24×18in Light foot traffic	32/6 each
Do. Strong do.	48/6 do.
Do. Light car traffic	102/- do.
Do. Road traffic	155/- do.

SUNDRIES—	Galvanized	
Manhole steps	8/6	each
4in Mica valve fresh air inlets (L.C.C.)	23/-	do.
Plumber's hemp	9 3	per lb.
Gaskin, caulking	1/5½	do.
Canvas backed hair felt, 4in wide	9*d.*	per ft run

ROOFING MATERIALS

WELSH SLATES (delivered)—

Sizes in inches	Quantity 1,000 to 1,999 per 1,000	100 to 499 per 100	1 to 99 per doz.
22×11	1855/-	224/6	29/9
20×10	1590/6	192/6	25/3
18×10	1177/-	142/6	18/9
16×8	790/9	95/9	12/6
14×9	711/6	86/-	11/3
14×4½	316/3	38/3	5/-

TILES (Broseley and Staffordshire)—	per 1,000	per 100
10½″×6½″ Machine made	293/6	35/6
Do., hand made, sand faced	345/6	41/9
Hips, valleys and angles	31/- per dozen	
	Per 1,000	Per 100
Plain concrete tiles	177/-	19/6

Sheeting asbestos corrugated, 6in pitch (23 to 85 super yard lots)	6/8½ yard super
4½in×16 gauge, drive screws (galvanized)	16/3 gross
7/8×7/16 hook bolts and nuts (do.)	52/6 do.
Washers, round, flat, galvanized	4/9 do.
Do. do. bituminous	2/- do.

ROOFING FELT—		
Sanded bitumen felt (55lb)	1/-	Yard Super
Ditto, but 75lb in weight	1/6	Do.
Inodorous felt, best quality	3/-	Do.
Ditto, second quality	2/4	Do.
Underlining	1/8	Do.
Sheathing	1/8	Do.
Galvanized felting nails	1/6	lb

PRECAST CONCRETE LINTOLS—
1 : 2 : 4—⅜in material, finished with fair exposed faces, including all form-work and one ¼in diameter mild steel rod reinforcement to each 4½in in width.

Per foot lineal delivered to site.				
4½in×6in	9in×6in	9in×9in	13½×9in	18in×9in
4/-	6/-	7/8	9/6	11/6

STONE

PER FOOT CUBE in random blocks not exceeding 20ft average in each.
BATH STONE F.O.R. SOUTH LAMBETH—
Monks Park 6/10 St. Aldhelm 7/10 Doulting 7/7
STONE F.O.R. NINE ELMS—
Portland brown Whitbred 7/8. Beer 7/3.
Over 20ft average cube blocks extra cost.

TIMBER

Softwood—sawn—random lengths.

	Per Standard	Per cubic foot
Carcassing quality	£100	12/1½
Joinery quality	£120 and up	13/4

Plain edged unsorted flooring, per square	⅞in	1in	1¼in	1½in
	90/-	110/-	138/-	165/-

⅜in insulating wall board (600 yards) 4/8 yard super.
Larger quantities cost less, and smaller quantities more.

SUNDRIES—	Dia.	3in	6in	9in
Black hexagon bolts, nuts and washers. Each	¼in	6*d.*	7½*d.*	10*d.*
	⅜in	10*d.*	1/-	1/3*d.*
	½in	1/2*d.*	1/5*d.*	1/9*d.*
Sashline, hemp, good quality Per Yard Run	No. 6 9*d.*		No. 8 1/-	No. 10 1/3
Floor brads	67/- per cwt			
Cut Clasp Nails	70/- per cwt			
Steel ordinary screws	1″ No. 8 2/7	2″ No. 8 4/2	per gross	
Brass, ditto	Do. 7/-	Do. 13/2	per gross	

HARDWOOD—

Prime	Per ft super ⅞in	1in ft	Per cube
African mahogany	2/4	2/6	28/-
Honduras ditto	4/-	4/7	55/-
Portuguese Guinea ditto	3/1	3/3	36/-
African walnut	2/5	2/7	29/-
Australian ditto	5/6	5/10	65/-
English oak	4/3	4/6	50/-
Yugoslavian ditto	3/4	3/7	40/-
Burma and Siam Teak	5/-	5/9	65/-

DOORS.—STANDARD TYPE SOFTWOOD

Each in quantities 12 or more.
1⅜in finish, 4 horizontal panels moulded both sides, 6ft 6in high.
2′ 3″ wide 41/-
2′ 6″ do. 42/3
2′ 9″ do. 44/6

FLUSH DOORS 1⅜in thick, ply faced both sides, lipped edge.
All 6ft 6in high.
2′ 3″ wide 47/6
2′ 6″ do. 49/6

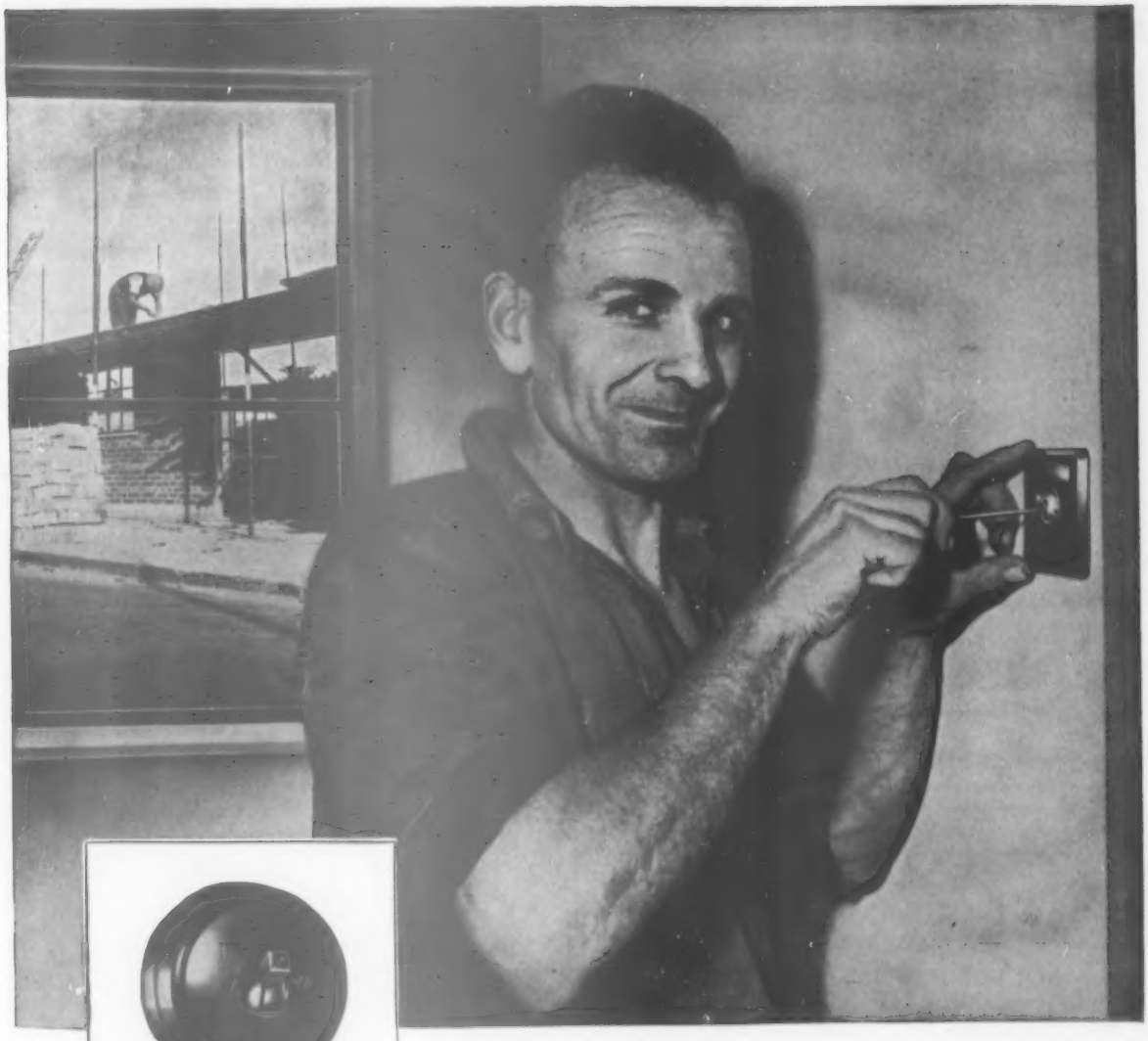
PANELLED DOORS: see B.S. 459—Part 1.

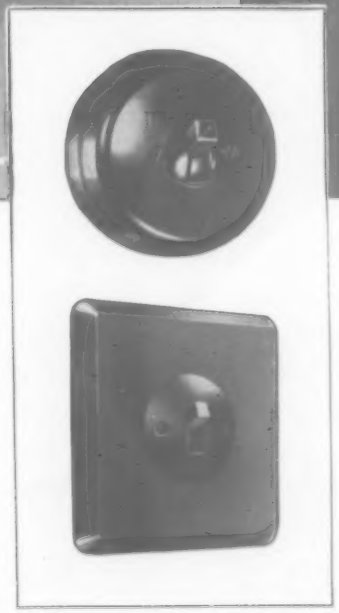
FLUSH DOORS:— see B.S. 459—Part 2.

2in (nominal) as last but upper panel prepared for glazing
2′ 6″ wide 59/-
2′ 9″ do. 62/-
2in (ditto) all as above but in 3 panels.
2′ 6″ wide 55/9
2′ 9″ do. 58/3
2in (ditto) all as above but in 2 panels.
2′ 6″ wide 51/3
2′ 9″ do. 53/6

IRONMONGERY

	2in	3in	4in	5in	6in
Cast iron Butts, per pair	10*d.*	1/3	2/-	3/9	5/4
Hinges, spring, single action regulating, japanned, each	—	6/9	9/-	12/-	15/-
Do. but double action spring only, each	—	12/-	15/6	22/9	27/9
Do. blank only, each	—	5/6	10/6	12/9	16/6





My point of view . . .

. . . is that the Avon Range of A.C. Switches has been designed with considerable thought. For instance when fitted in their plaster depth boxes they have a simple method of adjusting the switch depth whilst the switch is in position.
Points like these mean a great deal to chaps like me. They also show that apart from producing a jolly good switch at a very competitive price Ediswan Designers have given quite a lot of thought to making them simple to install.

Publication CE. 1693A. gives full details of the Avon range. We'll be pleased to send a copy on request.

EDISWAN

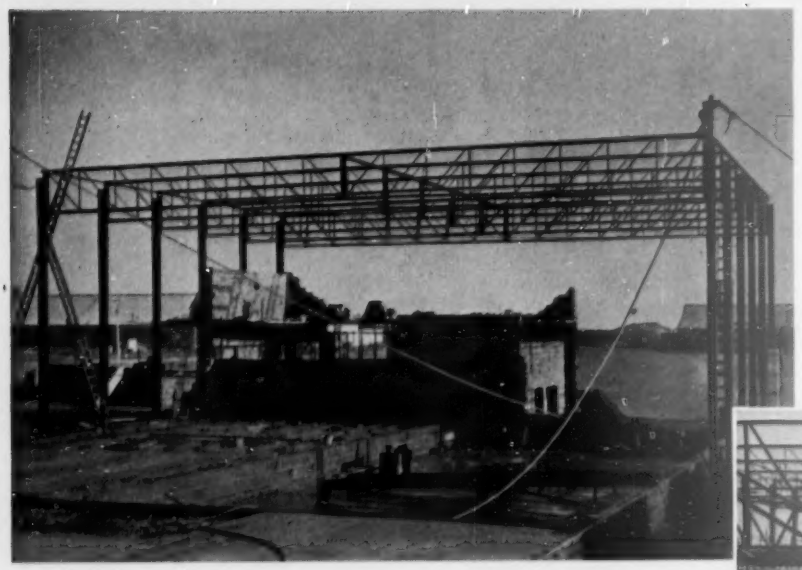
RANGE OF ELECTRICAL ACCESSORIES

A catalogue and price list of the complete range of Ediswan electrical accessories is available on request.

E 32

THE EDISON SWAN ELECTRIC COMPANY LIMITED
155 Charing Cross Road, London, W.C.2, and branches. *Member of the A.E.I. Group of Companies*

HOTCHKISS LATTICE CONSTRUCTION



Hotchkiss lattice construction is being used for new schools, churches, factories, halls and many other buildings to the requirements of County Councils, Borough Councils and many leading architects.

The system is entirely flexible in application and suitable for all types of covering materials.

Your specific enquires are invited. Our design services are free and it is most advantageous to call us in at an early stage.

57 ft. lattice girders at a Portsmouth factory. Architects: Thomas Jolly & Grant. Contractors: John Hunt Ltd.

HOTCHKISS ENGINEERS LTD.

EASTBOURNE AND SHOREHAM SUSSEX

ESTABLISHED 1885

HEAD OFFICE: ASHFORD ROAD, EASTBOURNE TEL. 2424 (4 LINES)

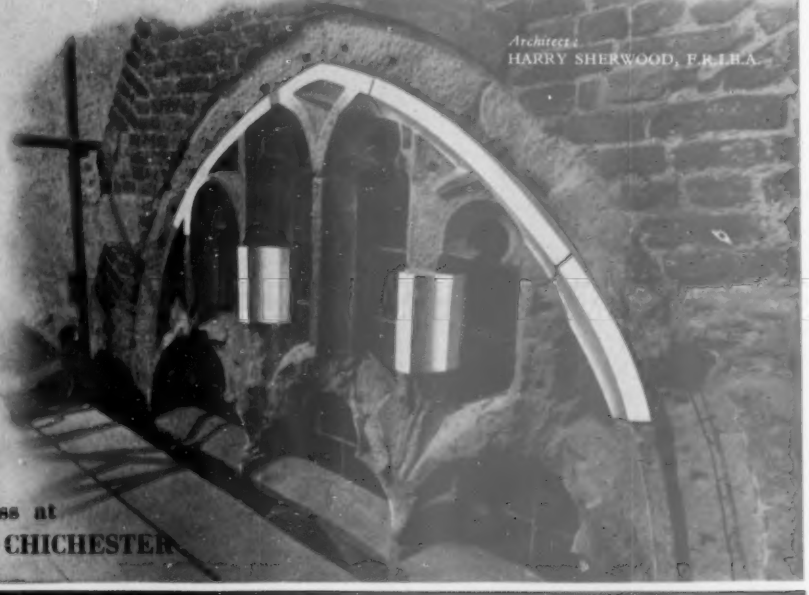
Putting Back the Past . . .

A DIFFICULT PROBLEM

Although this window in Reigate Stone had suffered deep erosion it was preferred not to take it out, which would disturb the interior, and so reinstatement could not be in natural stone.

Solved by "PLASTIC RECONSTRUCTED STONE"

The photograph shows one stage in the work of cutting away the decayed stone and skilfully reforming the exterior in our specially prepared, heavily reinforced, "Plastic Reconstructed Stone," a considerable saving in cost and inconvenience.



Architects: HARRY SHERWOOD, F.R.I.B.A.

Restoration work in progress at SIDLESHAM CHURCH near CHICHESTER

REPARATIONS - DREYFUS LTD

Whitson Street, St. James', Bristol 1 · 129, GREAT SUFFOLK STREET, LONDON, S.E.1 · 36, Cannon Street, Birmingham, 2

CURRENT MARKET PRICES *(Continued)*

IRONMONGERY—*Continued*

	12in	18in	24in	30in	36in
Tee hinges (japanned), per pair	2/-	3/10	—	—	—
Do. but stronger, per pair	3/4	6/1	8/3	—	—
Hook and Ride hinges, per pair	—	—	13/4	16/3	24/10

BOLTS—each—	3in	4in	6in	8in	10in	12in
Cabinet, barrel, straight or necked	1/4	1/6	2/-	—	—	—
Square spring, with brass knob	1/3	1/6	2/-	—	—	—
Tower bolts	—	1/7	2/3	3/-	3/9	4/6
Barrel bolts	—	2/6	3/8	4/10	6/2	7/6
Add to Tower or Barrel bolts if necked	—	4½*d*	5½*d*	6½*d*	6½*d*	6½*d*

LOCKS—each

Rim lock, 2 lever, wrot case brass bolt and bushing	11/9	Brass furniture or Bakelite do.	3/- 3/1
		Bakelite finger-plates	2/3
Mortice lock, 2 lever, bushed	15/8	Brass furniture or Bakelite do.	7/- 3/8
Cylinder latches, japanned case			17/-
Brass sash fastener		each	4/-
Casement fasteners (malleable)		do.	1/6
Do. stays (do.)		do.	2/-
Axle pulleys (brass face, iron wheel)		do.	3/4
Do. as last, but with brass wheel, 1¼in		do.	4/1
Sash line, No. 8 Anchor yellow label		per yard	1/-

METAL GOODS

Basis—Rolled steel joists, all sections from 5″ × 4½″ to 16″ × 6″ inclusive (except 9″ × 7″, 10″ × 8″, 12″ × 8″ and 14″ × 8″) (over one ton)	£38/10/0	per ton
Extras—9″ × 7″ section	5/-	do.
4″×4″, 5″×3″, 10″×8″, 12″×8″, 14″×8″ and 16″×8″ to 20″×7½″ sections inclusive	10/-	do.
22″×7″ section	15/-	do.
4″×2½″, 4″×3″, and 24″×7½″ sections	20/-	do.
Steel angles and tees	£40/10/0	do.
Steel bars	£38/10/0	do.
Mild steel rods ½″ diameter and upwards, cut to lengths within the usual margin and bent to normal schedules for reinforcement	50/-	per cwt
Extras per ton		
⅜in and ½in diameter in size	27/-	per ton
⅝in do. do.	27/-	do.
¾in do. do.	34/6	do.
⅞in do. do.	42/-	do.
1in do. do.	72/-	do.
1¼in do. do.	102/-	do.
Extras for length		
5ft to 3ft	7/6	do.
3ft to 2ft	15/-	do.
2ft	22/6	do.
40ft to 45ft	15/-	do.
45ft to 50ft	22/6	do.
Bolts and nuts	81/-	per cwt
Trench covering, including trays 1¼in. deep and rebated frames, 9in wide	20/6	foot run
Do., but 12in wide	22/-	do.
Do., but 14in wide	24/-	do.
Do., but 18in wide	31/6	do.

METAL SUNDRIES

Cast iron pavement light filled with 4in × 3in glass lenses	40/-	per ft. super
¼in wrought iron plate door in four panels with stiles and rails on both sides	42/-	do.
20 gauge galvanized iron trunking and straps	4/6	do.
24 gauge galvanized Tallboy 6ft. high 9in diameter with 9in × 12in base	50/-	each.

CHAIN LINK FENCING—

In 25 yards lineal rolls inclusive of line wire.

2in mesh.	Height in inches— 36	42	48	60	72
10½ wire gauge	88/6	103/3	118/-	147/3	176/9
12½ do.	62/3	72/6	83/-	103/9	124/6
14½ do.	44/6	51/9	59/3	74/-	89/-

DOUBLE SOOT DOORS AND FRAMES—

Fitted with brass turnbuckle and cast key	9in × 9in	12in × 9in	14in × 12in
	17/3	25/-	42/9

SLIDING DOORS, GATES AND PARTITIONS—

Factory sliding doors in two leaves containing about 100 square feet with mild steel angle frames covered with 24 gauge corrugated galvanized sheeting and including hanging tubular track and gear complete	13/6	foot super
Factory entrance gates with mild steel frames clad with 2in mesh chain link complete	10/6	do.
Steel partioning, glazed (rough cast) and stove enamelled	16/-	do.

STEEL ROOF LIGHTS—

Lanterns with vertical sides, and hipped roof, glazed with ¼in cast glass and lead flashed.	16/-	foot super
Skylights of similar construction (180ft super)	15/-	do.

HIGH GRADE DOMESTIC BOILERS

Coke fed. Performance 20 to 40 gallons raised from 40°F to 140°F per hour as under.

TYPE		£	s	d
20 gallons per hour 15in wide, 23in high.	Plain cast iron black finish	7	3	3
	Ditto, in cream mottle finish including side jackets	10	3	6
25 gallons per hour 19in wide, 22in high	In cast iron as before and base plate	10	13	6
	Ditto in cream mottle with side jackets and base	15	13	9
40 gallons per hour 22in wide, 23in high	In cast iron, etc. as last ditto	16	18	6
	Ditto in cream mottle all as last ditto	22	18	0

GAS, WATER AND STEAM TUBES

(From Standard List.)

Internal Diameter—	¼in & ⅜in	½in	¾in	⅞in	1in	1¼in	1½in	2in
Tubes .. per ft	4*d*	4½*d*	5½*d*	6½*d*	9½*d*	1/1	1/4½	1/10
Bends .. each	8*d*	9*d*	11*d*	1/2	1/7½	2/7½	3/2	5/2
Elbows, sq. do.	10*d*	11*d*	1/1	1/3	1/6	2/2	2/7	4/3
Do., round do.	11*d*	1/-	1/2	1/5	1/8	2/4	2/10	4/8
Tees .. do.	1/-	1/1	1/3	1/7	1/10	2/6	3/1	5/1
Crosses .. do.	2/2	2/4	2/9	3/3	4/1	5/6	6/7	10/6
Backnuts do.	2*d*	2*d*	3*d*	3½*d*	5*d*	6*d*	8*d*	1/1
Sockets .. do.	3*d*	3*d*	4*d*	5*d*	6*d*	8*d*	10½*d*	1/3
Sockets, dimin. do.	4*d*	5*d*	6*d*	7*d*	9*d*	1/-	1/4	2/-

PERCENTAGES ON OR OFF ABOVE
In quantity and in random lengths.

TUBE—			
Class A (light)	—20%	Black	+6% Galvanized
Class B (medium)	—11%	Do.	+12½% Do.
Class C (heavy)	+2½%	Do.	+20% Do.
FITTINGS			
Lightweight	+16%	Black	+25% Galvanized
Heavy	+25%	Black	+30% Do.

RAINWATER GOODS (Painted or Unpainted)

In consignments of 3 cwt and over.
From Standard List.

Pipe:		2in	3in	4in	5in	6in
6ft lengths	each	10/8	12/6	16/5	21/5	27/5
3ft do.	do.	5/10	6/9	8/8	11/4½	14/4½
Shoe, ordinary	do.	2/3	3/4	4/10	8/2	11/3
Bend	do.	2/8	3/9	5/5	9/9	12/8
Branch, single	do.	3/11	5/9	8/-	12/8	19/8
Offset, 4½in	do.	3/3	4/7	6/9	11/3	14/9
Do. 9in	do.	4/3	5/8	8/5	13/3	16/9
H.R. gutter, 6ft length	do.	—	5/3	7/4	9/-	12/-
Angle or nozzle	do.	—	2/2	2/8	3/3	4/8
Stop end	do.	—	8*d*	11*d*	1/4	1/6

Rainwater goods *plus* 10% at foot of invoice.

CURRENT MARKET PRICES *(Continued)*

PLASTERING MATERIALS

Sand, lime, cement and various plasters are previously included under those heads—

Metal lathing (¾" × 24G.) (20 yds.)		3/2	sq yard
Plaster baseboard, ½" (600 yards)		2/3	do.
Lath nails, galvanized		1/1	lb
White glazed tiles (6" × 6" × ¼")	small quantity	17/3	sq yard
Do. rounded on one edge	small quantity	20/9	do.
Do. on two adjoining edges	small quantity	25/6	do.

PLUMBER'S GOODS

4 lb lead sheet (in 1-ton lots)	130/–	per cwt
Lead water pipe in coils (do.)	131/3	do.
Plumber's solder	3/3	lb.
Copper tacks	5/6	do.

IRON SOIL AND WASTE PIPE. (Standard List)

each	2in.	3in	3½in	4in
⅛in Medium pipe, 6ft lengths	12/7	14/11	16/9	19/1
Ditto, 4ft length	9/0½	10/7½	11/10	13/4½
Bends	4/8	5/8	7/–	7/11
Ditto, with oval door	15/2	16/2	18/3	19/2
Junction, single	5/8	8/5	9/9	11/6
Ditto, with oval door	16/2	18/11	21/–	22/6
Swan necks, 4½in	5/8	8/11	10/3	11/11
Ditto, 9in	7/6	10/3	11/11	14/–
Holderbat, 2½in projection	4/8	4/10	5/1	5/2

All *plus* 10% added at foot of invoice

GALVANIZED CISTERNS, TANKS AND CYLINDERS—(Less than four)

each gallons	Nominal capacity			
CISTERNS—	100	150	200	300
Bends over tops and corner plates. Riveted or welded				
14 gauge	148/–	202/–	245/–	351/–
12 ditto	171/–	217/–	270/–	479/–
¼in plate	204/–	256/–	308/–	430/–
HOT WATER TANKS—	20	25	30	40
Riveted and with handhole and ring.				
12 gauge	103/–	114/–	124/–	148/–
¼in plate	113/–	124/–	135/–	164/–
HOT WATER CYLINDERS—	20	25	33	39
Riveted, with handhole and ring.				
12 gauge	131/–	145/–	157/–	168/–
¼in plate	146/–	161/–	178/–	189/–

PLUMBER'S BRASSWORK, etc.

	Each			
	½in	¾in	1in	1¼in
Boiler screws, single nut	1/5	1/10	2/9	4/6
Ditto double nut	1/10	2/6	4/3	6/3
Cap and lining	1/–	1/6	2/–	2/3
Plumber's unions	2/3	3/–	4/–	6/6
Ball valves, screwed iron	11/6	19/6	—	—
Ditto, fly nut and union	13/–	22/–	—	—
Bib valves, crutch top screwed iron	8/–	12/–	—	—
Ditto, but screwed boss	10/6	13/6	—	—
Stop valves, screwed iron	7/6	10/6	—	—
Ditto, screwed iron and union	8/9	13/–	23/6	—
Ditto, double union	9/9	15/9	26/–	—
Waste, plug chain and stay	—	—	6/–	6/6
	1¼in	1½in	2in	4in
Caps and screws	2/9	3/–	5/–	—
Sleeves, long	—	—	6/9	11/–
Ditto, short	—	3/2	4/3	6/9
Thimble	—	4/–	5/–	10/7
Full way gate valves, hot pressed	17/6	24/3	—	—
		1¼in	1½in	2in
Lead 7 lb. P. trap		6/–	7/11	11/1
Ditto, S. trap		7/3	9/8	13/7
Lead 6 lb. P. traps with 3in seal		6/8	8/1	—
Ditto, but S traps ditto		8/4	10/2	—

Wire ballon guards, copper, 2in 3/-; 4in 3/3.
Ditto, galvanized iron, 2in 1/10; 4in 2/–.
Hair felt, 34in × 20in, 24 oz., 6/– sheet.
Boss white jointing compound, 2/– lb.
Gaskin, 1/5½ lb. Hemp, 9/3 lb.

COPPER TUBES—Extract from B.S. 659/1944—

Internal work (semi hard).

Nominal bore	Outside diameter inch	Gauge	Weight lb per ft	3 Cwts lots Price per lb pence	Price per ft pence
¼in	0·596	19	0·27	40½	10·98
⅜in	0·846	19	0·39	39½	15·27
1in	1·112	18	0·62	37½	23·34
1¼in	1·362	18	0·76	37½	28·22
1½in	1·612	18	0·91	37½	33·79
2in	2·128	17	1·40	38½	54·09

CAPILLARY TYPE CONNECTIONS—

All ends copper to copper.

Each	½in	¾in	1in	1¼in	1½in	2in
Straight	1/8	2/4	3/8	4/10	6/6	9/4
Bends	4/4	5/4	7/8	10/6	16/6	23/2
Tees	4/–	4/8	7/6	11/–	15/8	23/2
Brackets (Brass)	2/1	2/3	2/6	—	—	—

GLASS

	Per foot superficial 24 oz.	26 oz.	32 oz.
English, flat drawn sheet glass cut to size: in squares	7½d.	9½d.	1/–
Figured rolled and cathedral, white, cut to sizes, in squares (½in)	9d.	Per foot super	
Ditto, but in standard tints	1/4½	Do.	
⅛in Rolled, cut to size, in squares	9d.	Do.	
¼in or ⅜in. Rough cast ditto	1/–	Do.	
¼in Ditto wired ditto	1/2	Do.	
Georgian wired ditto	1/2½	Do.	
Fluted (No. 4) ditto	1/1½	Do.	
Reeded (narrow, broad, cross and major) ditto	1/1	Do.	
Reedlyte (narrow and broad) ditto	1/1	Do.	
Spotlyte ditto	1/1	Do.	
¼in Calorexficast ditto	1/2½	Do.	

	Each 5½" × 5½"	7½" × 7½"
3⅞in hollow glass light diffusing blocks	2/9	4/2
Ditto corner blocks	5/3	6/9

POLISHED PLATE GLASS. (Tariff). Cut to sizes.

Ordinary substance approximately ¼in thick.

Per superficial foot.	Qualities General Glazing	Selected Glazing	Silvering
In plates not exceeding:			
2ft super in each	3/7	4/3	5/1
5ft ditto	4/5	5/2	6/2
45ft ditto (unless extra sizes)	5/1	5/9	6/11
100ft ditto (ditto)	5/6	6/9	8/10

Extra sizes, i.e., Plates exceeding 100ft super or 96in high or 160in wide at higher prices.

DECORATING MATERIAL

	Price	Unit
Aluminium Paint	37/6	Gallon
Distemper, ceiling	35/–	Cwt.
Distemper, washable	120/–	do.
Enamel	65/–	Gallon
Gold Metallic Paint	86/6	do.
Heat Resisting Paint	50/–	do.
Japan, black	23/6	do.
Knotting	30/–	do.
Linseed Oil	12/–	do.
Boiled, ditto.	12/6	do.
Proprietary Paints (good class)—		
Finishing	57/6	do.
Priming	53/–	do.
Undercoat	55/–	do.
Paperhanger's Paste	34/6	Cwt.
Petrifying liquid	8/6	Gallon
Putty	47/–	Cwt.
Size	9/3	Firkin
Terebine	16/–	Gallon
Turpentine substitute	6/2	do.
Varnish, oak, copal, inside use	33/–	do.
Ditto, ditto, outside use	38/–	do.
Ditto, white, eggshell, flat	44/6	do.
White lead mixed paint	58/–	do.
White lead	170/–	Cwt.
Whiting	12/6	Cwt.

Notes below give basic data of contracts open under locality and authority which are in bold type. References indicate: (a) type of work, (b) address for application. Where no town is stated in the address it is the same as the locality given in the heading, (c) deposit, (d) last date for application, (e) last date and time for submission of tenders. Full details of contracts marked ★ are given in the advertisement section.

CONTRACT • NEWS •

OPEN

BUILDING

BEVERLEY R.C. (a) 100 houses, Welton Road, Brough. (b) Architect and Surveyor, 22, Lairgate. (c) £1. (e) June 16.

* * *

BLETCHLEY U.C. (a) 2 factories, Nos. 3 and 4, on Council's Industrial Estate, adjacent to Watling Street. (b) Engineer and Surveyor, Council Offices. (c) 5gns. (e) July 5.

* * *

BOURNEMOUTH B.C. (a) Public convenience, Millhams Road, Kinson. (b) Borough Architect, Town Hall. (c) 1gn. (e) June 10.

* * *

BRECONSHIRE C.C. (a) 3 classrooms and additions to sanitary accommodation, Brecon Boys' County Grammar School, Brecon. (b) County Architect, Rhyd Offices, Brecon. (d) June 5.

* * *

BRECONSHIRE C.C. (a) Domestic science centre, Builth Wells Bilateral Grammar/Modern School. (b) County Architect, Rhyd Offices, Brecon. (d) June 5.

* * *

COALVILLE U.C. (a) 58 houses, Greenhill Housing Estate. (b) Engineer and Surveyor, Municipal Offices. (c) 2gns. (d) May 29. (e) June 21.

* * *

CONGLETON R.C. (a) 6 houses at Lawton Gate, Church Lawton; 15 houses at Meadow Bank, Kent Green. (b) Engineer and Surveyor, Council Offices, Middlewich Road, Sandbach. (c) 2gns. (e) June 4.

* * *

ENNERDALE R.C. (a) Public convenience, Lowca. (b) Council's Surveyor, Council Chambers, Cleator. (e) June 7.

* * *

EPPING R.C. (a) 5-storey maisonette block, comprising 8 maisonettes and 2 flats, Potter Street. (b) A. W. R. Webb, 209, High Street.

* * *

ESSEX C.C. (a) John Bunyan County Junior School, Braintree. (b) County Architect, County Hall, Chelmsford. (d) May 29.

* * *

ESSEX C.C. (a) Children's homes at (1) Quendon Road, Basildon; and (2) Battleswick, Basildon. (b) County Architect, County Hall, Chelmsford. (d) May 29.

* * *

ESSEX C.C. (a) Completion of adaptations at "St. Margarets" Children's Home, 86, High Road, Loughton. (b) County Architect, County Hall, Chelmsford. (d) May 29.

* * *

HALIFAX B.C. (a) Small group home for 10 children at Alloe Field View, Illingworth. (b) Borough Engineer, Crossley Street. (c) £2. (e) June 12.

* * *

HALIFAX B.C. (a) Shops and offices, George Street; (all trades). (b) Borough Engineer, Crossley Street. (c) £2. (e) June 21.

HIGH QUALITY WHITE FACING BRICKS
(S.P.W. BRAND)
As supplied to the WAR OFFICE, H.M. MINISTRY of WORKS, AIR MINISTRY. Etc.
Sample and Brochure sent on request
M. McCARTHY & SONS, LTD.
BULWELL · NOTTINGHAM

KINNEAR SHUTTERS

FIBRE INSULATION BOARD
"QUITFIRE" impregnated is FIREPROOFED (Class 1 to B.S.476/32 Amdt No. 2) and FUNGUS-proofed or TERMITE-proofed (or all three combined).
Used on Government contracts, Industrial Buildings, Schools etc.
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Plantation House, Mincing Lane, LONDON, E.C.3
Tel: MANsion House 4406 (3 lines)

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WATER PROOFERS AND HARDENERS
THE ADAMITE COMPANY LIMITED
MANFIELD HOUSE, STRAND, W.C.2

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VERMICULITE
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* * *

HOLLAND C.C. (a) Erection of Medway timber classrooms at Long Sutton School. (b) County Architect, County Hall, Boston.

* * *

HOWDEN R.C. (a) 2 pairs of houses, Bubwith; 2 pairs, Broomfleet; 1 block of 4 houses and 2 pairs, Gilberdyke; 1 block of 4 houses and 2 pairs, Newport. (b) Messrs. Blenkinsopp and Thompson, Clifton Chambers, Park Street, Selby. (c) 2gns. (e) June 11.

* * *

HUNTINGDONSHIRE C.C. (a) 2 bungalows, Daintree Farm, Ramsey St. Mary. (b) County Land Agent, Walden House, Huntingdon. (c) 2gns. (e) June 15.

* * *

KEIGHLEY B.C. (a) Ladies' and gentlemen's conveniences, Keighley Market (all trades). (b) Borough Architect, College Street. (c) £1. (e) June 14.

* * *

LLANDILO U.C. (a) Public conveniences, Llandilo. (b) Clerk of the Council, Council Offices, 27, Rhosmaen Street. (d) May 29.

* * *

LONDON—HORNSEY B.C. (a) 28 flats in 1 3- and 4-storey block, and 6 flats in a 3-storey block, Boyton Road, N.8. (b) Borough Engineer, Town Hall, N.8. (d) June 8. (e) July 5.

* * *

LONDON—STEPNEY B.C. (a) 55 flats in 5-storey blocks ("D," "E" and "G"), Spital Street Housing Scheme (First Portion). (b) Borough Engineer, Municipal Offices, 227-233, Commercial Road, E.1. (c) 10gns. (e) June 21.

* * *

LONDON—WALTHAMSTOW B.C. (a) 36 flats in 2 blocks 3-storeys high, and 15 garages at junction of Prospect Hill/Shernhall Street, E.17. (b) Borough Architect, Town Hall, E.17. (c) 2gns. (d) May 31.

* * *

MABLETHORPE AND SUTTON U.C. (a) Restoration of Sandsfield House, High Street, Sutton-on-Sea. (b) Clerk of the Council, Council Offices, Mablethorpe. (c) 2gns. (e) June 8.

* * *

MANSFIELD B.C. (a) 12 lock-up garages at rear of shops and flats now being erected on frontages to Harrop White Road, Ladybrook Lane Housing Estate. (b) Borough Engineer, Carr Bank. (c) 2gns. (e) June 9.

* * *

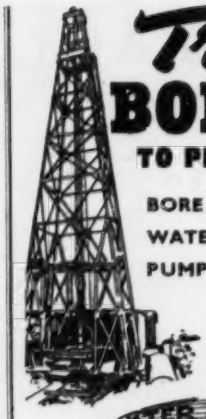
MERTHYR TYDFIL B.C. (a) Erection of a 2-F.E. Infant School (Phase 1), including site works at Gellideg, Merthyr Tydfil. (b) Borough Engineer, Town Hall (c) 3gns (e) June 16.

* * *

NEWARK R.C. (a) 14 houses, Farndon; and 6 houses at Coddington. (b) Messrs. W. Saunders and Partners, 24, Castle Gate. (e) June 14.

* * *

NORTHERN IRELAND HOSPITAL AUTHORITY. (a) Erection of next stage of work in connection with the new 300-bed General Hospital at Londonderry, comprising boiler house, workshops, kitchen, garages and stores, etc., as Contract 4. (b) Secretary, Northern Ireland Hospital Authority, 44-46, Queen Street, Belfast. (d) June 4. (e) July 29.



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* * *

PLYMOUTH C.C. (a) 24 flats in 4-storeys, King Street. (b) City Architect, Seymour Road. (c) 3gns. (d) June 1.

* * *

READING B.C. (a) (1) 4 houses, Emmer Green; (2) 4 houses, Tilehurst; (3) 6 houses, Whitley. (b) Borough Architect, Town Hall. (e) June 16.

* * *

RUGBY B.C. (a) Formation of access roads, foundations and slabs to garages, all site works, and supply and erection of 40 garages on 3 sites, Overslade Estate. (b) Borough Surveyor, Church Walk. (c) 2gns. (e) June 9.

* * *

RUGBY B.C. (a) Concrete covering to calf pens in Cattle Market. (b) Borough Surveyor, Church Walk. (c) 2gns. (e) June 9.

* * *

ST. HELENS B.C. (a) First phase of new technical college. (b) Director of Education, Education Office. (d) June 8.

* * *

SCOTTISH SPECIAL HOUSING ASSOCIATION. (a) 50 cottages at the Kirkhall Site, Ardrossan (all trades). (b) Scottish Special Housing Association, Ltd., 15-21, Palmerston Place, Edinburgh 12.

* * *

SLOUGH B.C. (a) 8 shops with maisonettes over, Wexham Estate. (b) Borough Engineer, Town Hall. (c) 2gns. (e) June 19.

* * *

STOURBRIDGE B.C. (a) 4 blocks of 3-storey flats. (b) Borough Engineer, Council House. (c) 3gns. (d) May 31.

* * *

SUNBURY-ON-THAMES U.C. (a) Single-storey office block at rear of Council Offices. (b) Engineer and Surveyor, Council Offices. (c) 2gns. (e) June 21.

* * *

SUNDERLAND B.C. (a) Hostel for aged persons, Pennywell Estate. (b) Borough Architect, Grange House, Stockton Road. (c) 2gns. (e) June 8.

* * *

WALTHAM HOLY CROSS U.C. (a) 166 houses and roads and sewers, Pick Hill Housing Estate, Waltham Abbey. (b) Engineer and Surveyor, Town Hall, Waltham Abbey. (c) 3gns. (d) June 1.

* * *

WANTAGE R.C. (a) 8 houses at Hermitage. (b) Council's Surveyor, Council Offices, Belmont. (c) 2gns. (e) June 19.

* * *

YORK C.C. (a) (1) 4 police houses at Ridgeway; 2 at Chaloners Road; (2) house with shop attached at Crichton Avenue. (b) City Architect, 8, St. Leonard's Place. (c) £1 for each scheme. (e) June 10.

PLACED

Notes on contracts placed state locality and authority in bold type with (1) type of work, (2) site, (3) name of contractor and address, (4) amount of tender or estimate. † denotes that work may not start pending final acceptance, or obtaining of licence, or modification of tenders, etc.

ESSEX COUNTY COUNCIL. (1) Fryerns Secondary School. (2) Basildon. (3) Leightons (Contractors), Ltd., 10, Chandos Street, London, W.1. (4) £196,709.

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MERIONETHSHIRE C.C. (1) Secondary school. (2) Harlech. (3) John Hughes (Contractors), Ltd., 12a, Holt Street, Wrexham. (4) £187,243.

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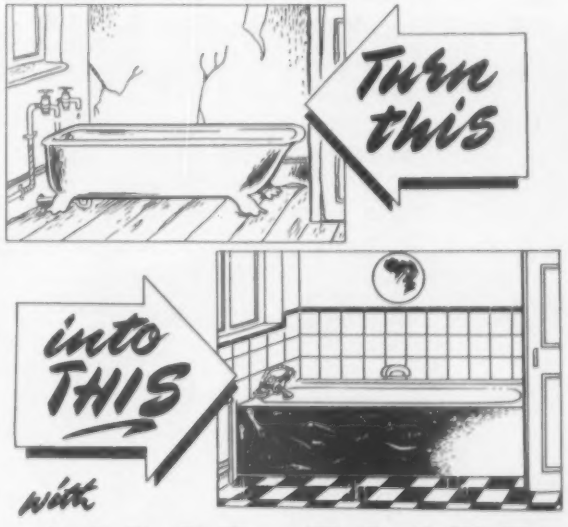

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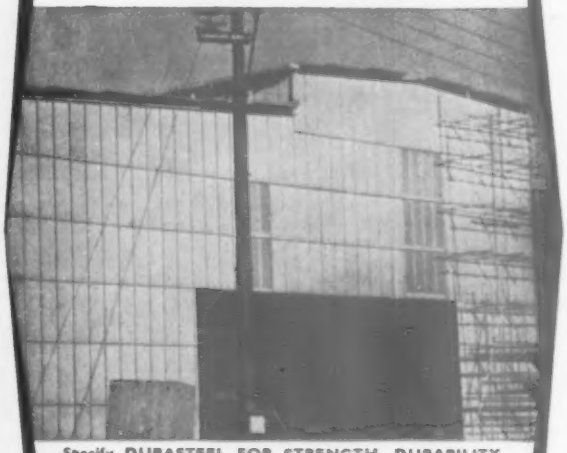

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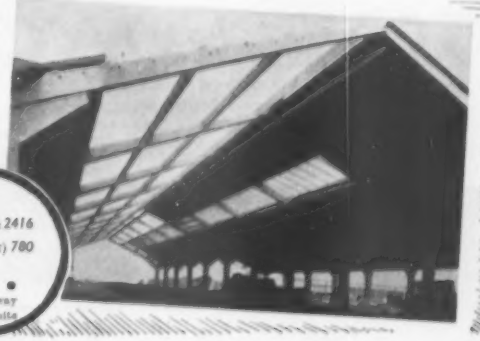

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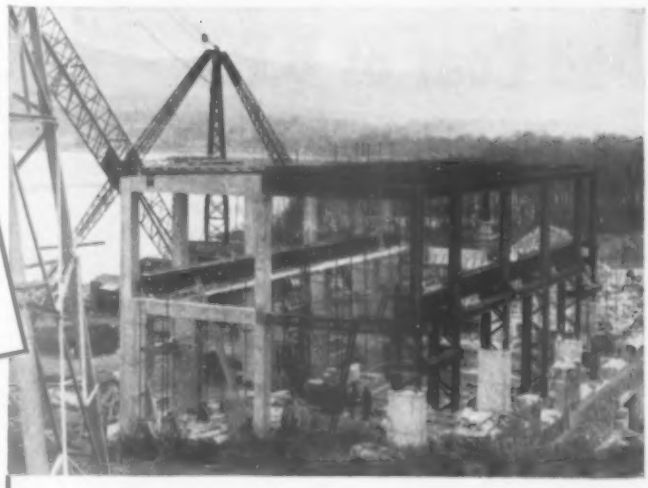

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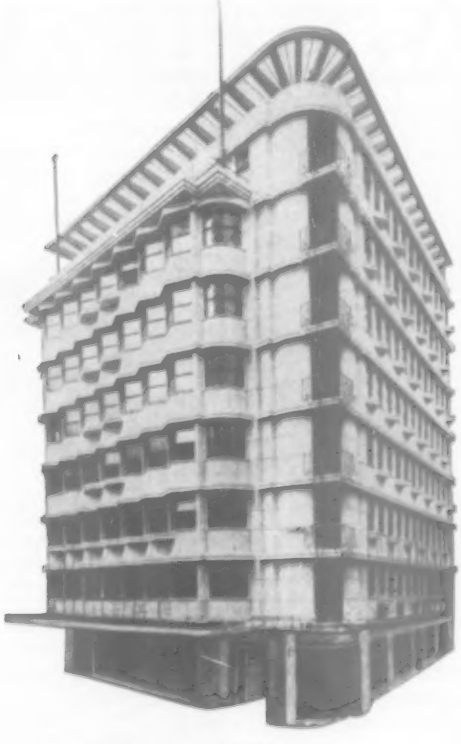

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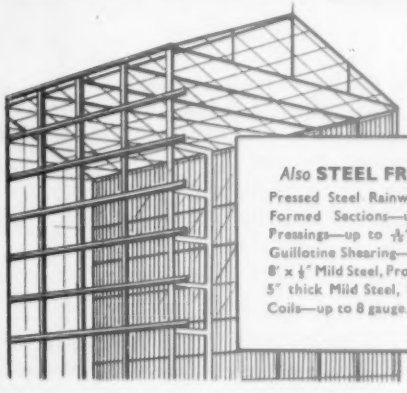

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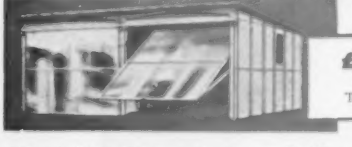

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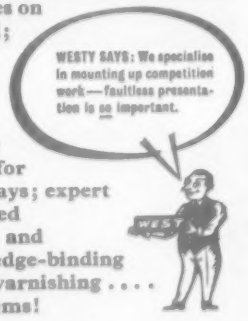

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For the issue of "The Architect and Building News" dated 10 June, classified advertisements must reach us by 1ST POST FRIDAY, 4 JUNE.

APPOINTMENTS

The engagement of persons answering these advertisements must be made through the local office of the Ministry of Labour and National Service, etc., if the applicant is a man aged 18-64 or a woman aged 18-59 inclusive, unless he or she or the employer is excepted from the provisions of The Notification of Vacancies Order 1952.

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COUNTY BOROUGH OF BURY.

APPLICATIONS are invited for the appointment of an ARCHITECTURAL ASSISTANT in the Borough Engineer's Department. Salary up to Grade A.P.T. V (£620-£670), National Scales of Salaries, according to qualifications and experience.

The appointment is subject to the Local Government Superannuation Act, 1937, and medical examination.

Applications, stating age, details of training, qualifications and experience, together with the names and addresses of two persons to whom reference may be made, must be received by me not later than the 5th June, 1954.

EDWARD S. SMITH,
Town Clerk.

Town Hall,
Bury.
20th May, 1954. [7986

PERTH AND KINROSS JOINT COUNTY COUNCIL require one SENIOR ASSISTANT ARCHITECT, salary £660-£770 with placing. House available. Applicants must be fully qualified A.R.I.B.A. and have up-to-date experience of School Building work.—Particulars and forms of application from the County Clerk, County Offices, York Place, Perth. Applications to be lodged by 14th June, 1954. [7990

APPOINTMENTS—contd.

BROMSGROVE URBAN DISTRICT COUNCIL.

ARCHITECTURAL ASSISTANT.

THE Council invite applications for the appointment of an ARCHITECTURAL ASSISTANT on the staff of the Engineer and Surveyor at a salary in accordance with A.P.T. Grade III of the National Salary Scale (£550-£595).

Applicants should have passed the A.R.I.B.A. Intermediate Examination or its equivalent, and should have had experience in the preparation of plans, specifications, etc., for architectural work usually undertaken by a local authority, and in particular, housing.

Housing accommodation will be made available if, in the opinion of the Council, it is warranted.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the person appointed will be required to pass a medical examination.

Applications, stating age, giving full particulars and qualifications and experience, together with one copy of a recent testimonial, must be delivered to the undersigned not later than Wednesday, 2nd June, 1954. In addition the names of two persons to whom reference can be made must be enclosed with the application.

F. A. JESSOP,
Clerk of the Council.

Council House,
Bromsgrove.
17th May, 1954. [7985

ARCHITECT.

WILLENHALL U.D.C. invite applications for the post of ARCHITECT at a salary in the range £900-£1,100. The post is subject to Superannuation Acts, conditions of service of Joint Negotiating Committee for Chief Officers and one month's notice. Applicants must be Associates of the Royal Institute of British Architects and have had wide experience in architectural design and construction, particularly of houses.

Applications, stating age, qualifications, experience, present and past appointments, two referees and whether applicant is related to any member or senior officer of the Council, must reach the Clerk of the Council, Town Hall, Willenhall, Staffs, by 12th June, 1954. [7976

BERKSHIRE COUNTY COUNCIL.

APPLICATIONS are invited for the appointment of an ARCHITECTURAL ASSISTANT, Grade IV (£580-£625), in the County Architect's Department. Candidates should have had office experience and have reached R.I.B.A. Intermediate Standard or have recently completed a recognised architectural course.

Opportunity will be given to obtain varied experience in Local Government work or to specialise.

Application forms and further particulars can be obtained from J. T. Castle, A.R.I.B.A., A.M.T.P.I., Wilton House, Parkside Road, Reading, to whom they should be returned not later than Wednesday, the 9th June, 1954.

E. R. DAVIES,
Clerk of the Council.
[7987

HOLLAND COUNTY COUNCIL.

APPOINTMENT OF DEPUTY COUNTY ARCHITECT.

APPLICATIONS are invited from Associates of the Royal Institute of British Architects with local government experience for the appointment of DEPUTY COUNTY ARCHITECT. Salary £1,250×£50—£1,450. Conditions and particulars from Clerk of the County Council, County Hall, Boston, Lincs. Last date for applications 30th June, 1954. The County Architect will retire in January, 1956. [7966

APPOINTMENTS—contd.

CITY AND COUNTY OF NEWCASTLE UPON TYNE

CITY ARCHITECT'S DEPARTMENT.

THE City Architect will be pleased to receive applications from suitably qualified Architects for vacancies on A.P.T. Division, Grades IV (£580-£625), V (£620-£670), and VI (£695-£760).

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and to one month's notice on either side. Successful candidates will be required to pass a medical examination.

Applications, stating position applied for, age, particulars of training, qualifications, experience, present and past appointments, together with copies of two recent testimonials or the names and addresses of two persons to whom reference may be made, should be addressed to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1, not later than Thursday, 10th June, 1954.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1
17th May, 1954. [7978

COUNTY BOROUGH OF DUDLEY.

ARCHITECTURAL ASSISTANT.

APPLICATIONS are invited for the appointment of ARCHITECTURAL ASSISTANT, Grade IV, in the department of the Borough Architect.

Applicants must have passed the Intermediate Examination of the R.I.B.A.

Applications, stating age, experience and giving the names of two referees, to reach me not later than Saturday, the 19th June, 1954.

P. D. WADSWORTH,
Town Clerk.

Council House,
Dudley. [7995

BOROUGH OF HORNSEY.

TEMPORARY ARCHITECTURAL ASSISTANT required for Borough Engineer and Surveyor's Department, A.P.T. V-VI (£650-£790, including London Weighting). Commencing salary according to experience.

Application Form from Borough Engineer and Surveyor, Town Hall, Crouch End, N.8, to be returned by 10th June, 1954.

H. BEDALE,
Town Clerk.
[7996

CITY OF LEICESTER.

APPLICATIONS are invited for the appointment of MAINTENANCE ASSISTANT in the City Surveyor's Department. The salary will be in accordance with Grade A.P.T. IV-VI (£580-£760), according to qualifications and experience, and the appointment is subject to the provisions of the Local Government Superannuation Act, 1937.

Applicants should have a good knowledge of architectural practice and be experienced in the maintenance of buildings, preparation of specifications and plans.

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Application forms may be obtained and should be returned to the undersigned not later than Tuesday, 1st June, 1954.

JOHN L. BECKETT, M.Inst.C.E.,
City Surveyor.

Town Hall,
LEICESTER. [7972

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ASSISTANT required; final R.I.B.A. standard; experience of industrial work preferred, but not essential.—Write T. Mitchell, 20, Bedford Sq., W.C.1. [7989

JUNIOR architectural assistant required by J. M. Austin-Smith & Partner, 29, Sackville Street, W.1.—Write, stating particulars; salary by arrangement. [7991

JUNIOR assistant required in architect's department of City property company; please state age and salary required.—Box 5586. [7970

EXPERIENCED Architectural Assistant required in Guildford office, R.I.B.A. Intermediate standard. State age, experience, salary and date available.—Box 5588. [7983

HIGH WYCOMBE firm of Architects requires Senior Assistant Architect, able to take charge of large contracts. Salary according to experience. —Write, giving age and particulars, to Box 5587. [7980

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EXPERIENCED senior and junior architectural assistants required, preferably with experience in industrial work.—Write or telephone to Hasker & Hall, Architects, 13, Welbeck St., London, W.1 (Welbeck 0061). [7992

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SENIOR and junior architectural assistants required for general London practice.—Write, stating age, details of experience, and salary required, to H. & H. M. Lidbetter, F./F.R.I.B.A., 2, Verulam Buildings, Gray's Inn, W.C.1. [7993

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Printed in Great Britain for the publishers, ILIFFE AND SONS LTD., Dorset House, Stamford Street, London, S.E.1, by CORNWALL PRESS LTD., Paris Garden, Stamford Street, London, S.E.1.

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